DOCUMENT RESUME

ED 222 014 EC 150 082

AUTHOR Coyne, Phyllis
TITLE Well-Being for Mentally Retarded Adolescents: A Social, Leisure, and Nutrition Education Program.
INSTITUTION Oregon Univ., Portland. Health Sciences Center.
PUB DATE 80
GRANT 50-P-50368
NOTE 139p.; For related document, see EC 150 083. Supported by the Developmental Disabilities Office, Region X.
AVAILABLE FROM Oregon University Health Sciences Center, Crippled Children's Division, P.O. Box 574, Portland, OR 97207 ($8.00 prepaid).

EDRS PRICE MF01/PC06 Plus Postage.
DESCRIPTORS Adolescents; *Body Weight; Evaluation Methods; *Interpersonal Competence; Learning Activities; Leisure Time; Models; *Moderate Mental Retardation; *Nutrition; Program Descriptions; Program Development; Records (Forms); *Recreational Activities; *Social Development; Student Evaluation

ABSTRACT

Intended for those working with moderately mentally retarded adolescents, the manual offers guidelines for social, recreation, and nutrition education. An introduction points out that the program model contains specific program strategies, assessment techniques, and methods to teach specific skills and concepts in the areas of leisure participation, socialization, and weight control. The goals for the program fall into three basic areas--service to moderately retarded adolescents with a weight problem, service to parents, and training for undergraduate and graduate students (trainees) from various health/helping disciplines. Some of the necessary precursors to program implementation include identification of the population to be served, identification of the purpose of the program, determination of criteria for enrollment, identification of budget needs and available funding, analysis of staffing needs, analysis of equipment needs, and establishment of a recordkeeping system. The multifaceted assessment approach used by the program model utilizes interviews with parents or other primary care providers, informal interviews with classroom teachers or other school personnel, direct observation of students' skills and knowledge in a structured testing situation, and direct observation of the participant's behavior in an unstructured situation. Detailed outlines are offered for activities within the program's three components (social, leisure, and nutrition education). Provided for each activity are the objective, procedure, directions, time agenda, and notes. Appendixes contain a presentation for a parent meeting, two case summaries, an evaluation form, parent letters, a sample student assessment report, and a table on developmental levels of play. (SW)

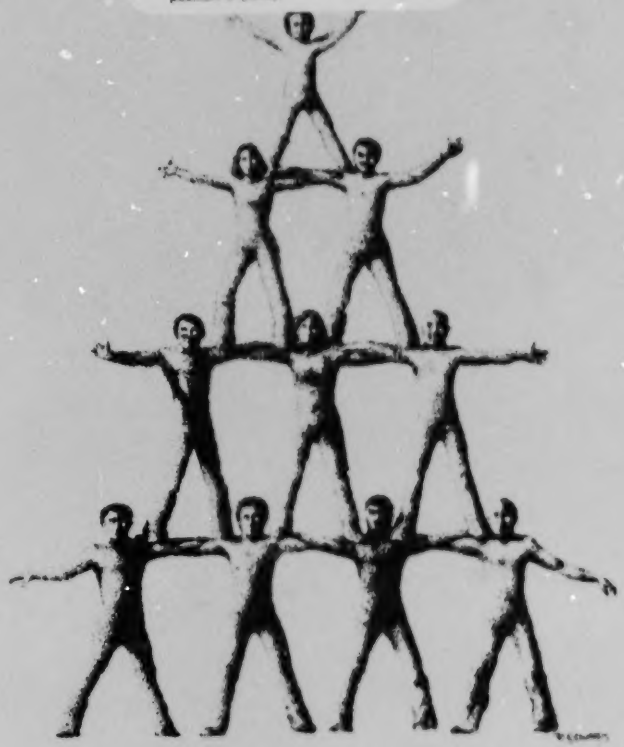
ED222014

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.



Well-being for Mentally Retarded Adolescents:

A Social, Leisure, and Nutrition Education Program

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Victor D. Menashe

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Phyllis Coyne

Crippled Children's Division
University of Oregon Health Sciences Center, Portland

EC 150082

ACKNOWLEDGMENTS

The author wishes to express her gratitude to all the staff and faculty of Crippled Children's Division, as well as to the parents and adolescents who participated in Project Recreate for their generous sharing of their knowledge and themselves. Particular thanks go to those persons who made specific contributions to the development of this model and this publication:

Dr. R. S. Justice of the Developmental Disabilities Office, Region X, for financial support under Grant No. 50-P-50368.

Dr. John Keiter, Director, Project Recreate, for editing the manual as well as for his constant support and guidance.

Carol Leitschuh, Co-coordinator, Project Recreate, for her assistance in the design and piloting of the programs for moderately mentally retarded adolescents.

Penny Mock, Director, Sex Education Project, for the development and testing of the social skills development component of the programs for moderately mentally retarded adolescents as well as for her contribution to the social skills training section of this manual.

Lillian Cunningham, Nutritionist, for the design and evaluation of the nutrition component of the programs for moderately mentally retarded adolescents.

Marti Cooksey for typing and helping to prepare this manual for publication.

R. Edwards and the Community for the Equilibrium and Development of the Human Being (4620 N.E. Sandy Boulevard, Portland, Oregon 97213) for permission to use the illustration on the cover.

Copyright 1980 by the University of Oregon Health Sciences Center.

Additional copies may be obtained for the cost of reproduction and handling from:

Crippled Children's Division
University of Oregon Health Sciences Center
P.O. Box 574
Portland, Oregon 97207

TABLE OF CONTENTS

I. INTRODUCTION 1
Comparison of the Mentally Retarded to the Non-Retarded 2
Summary 9

II. PROGRAM OVERVIEW 11
Service to Adolescents 12
Service to Parents 14
Student Training 16
Summary 17

III. PROGRAM ORGANIZATION 18
Population To Be Served and Needs 18
Purpose of Program 19
Criteria for Enrollment 20
Budget Needs and Funding 21
Staffing 22
Recruitment of Participants 23
Number, Length and Spacing of Sessions 24
Basic Program Content 24
The Setting 26
Equipment 27
Transportation 27
Record Keeping 28
Summary 28

IV. ASSESSMENT 31
One-to-One Approach to Pre-Program Assessment 32
Group Approach to Assessment 42
Summary 59

V. PROGRAM IMPLEMENTATION 60
Social Skills Training 60
Leisure Education 75
Nutrition Education 95
Summary 102

REFERENCES 104

APPENDIXES
Appendix A - Presentation for Parent Meeting 106
Appendix B - Two Case Summaries 111
Appendix C - Evaluation Form 116
Appendix D - Parent Letters 119
Appendix E - Assessment 124
Appendix F - Play Code 131

INTRODUCTION

Adolescence is a time of psychological, physical, social, and intellectual maturation for normal individuals. During this stage a number of maturational tasks must be confronted in order to prepare for the roles of adulthood. This normative stage is difficult for all adolescents but presents additional special problems for the moderately mentally retarded individual. The only milestone for many moderately retarded individuals in reaching the legal status of adult is passing from a school environment to a work placement and, in some cases, from parents' home to a group home. Moderately mentally retarded adolescents need training in a variety of independent living skills. Some effective models for vocational training, money management skill development and other skills of daily living have been developed. However, moderately mentally retarded adolescents have continued to lack training that would alleviate the interrelated problems of social isolation, lack of activity and obesity that interfere with their well-being and quality of life. Without systematic intervention these problems persist into adulthood.

Having recognized the need for training models to increase the normative and independent living skills of developmentally disabled adolescents and young adults, a grant proposal for leisure skills development for this population was collaboratively written by a pediatrician, a special educator and an educator and was subsequently funded by the Developmental Disabilities Office, Region X. The grant funded Project Recreate has been housed at Crippled Children's Division, University of Oregon Health Sciences Center, Portland, Oregon since 1977. The project shares the facility's interprofessional commitment to service to handicapped individuals and, therefore, programs conducted by this project have been interdisciplinary in nature. The major disciplines that have been involved in programs with Project Recreate have been therapeutic recreation, nutrition, social/sex education, psychology, medicine, and speech pathology. Trainees from a number of health/helping professions, such as therapeutic recreation, nutrition, nursing, physical therapy, occupational therapy, special education and psychology, have also been involved in these programs.

The model for social*, recreation+ and nutrition education presented in this booklet has been developed from pilot programs for Down's Syndrome and other moderately mentally retarded adolescents conducted by Project Recreate at Crippled Children's Division from 1977 through 1979. This manual has been written for those working with moderately mentally retarded adolescents, in

---

*The term social skills as used in this booklet encompasses social interaction skills, appropriate social behaviors and adaptive social skills.

+Recreation is the satisfying use of leisure time. Recreation and leisure activities are elements of a person's daily life in which participation may be planned, requested, or self-initiated to meet a basic need and to provide personal enjoyment. (The terms recreation and leisure will be used interchangeably.)

the belief that various aspects of the model can be effectively used by many types of community and clinical programs. It is applicable to school settings, community recreation programs, vocational training programs, work activity centers, residential training facilities, hospital and other community based programs.

In the program model, an educational-developmental process is utilized. Participants are trained starting from their present level of functioning. The model contains specific program strategies, assessment techniques, and methods to teach specific skills and concepts in the areas of leisure participation, socialization and weight control. In addition, it includes an overview of methods for working with parents and procedures for training pre-service health/helping professionals. The importance of designing programs to meet individual needs is stressed. Proven techniques to make this model transferable to settings which may be more limited in staff and funds or have a different orientation than a clinical setting are presented. Without intervention such as that presented in this manual, the moderately mentally retarded adolescent is unlikely to achieve his/her potential for independent living and quality of life. With the proper training and acquisition of necessary skills in segregated programs such as this, many individuals will be able to transition into integrated, on-going community activities and engage in a more participatory and ultimately holistic lifestyle. Thus, the program model can have an important impact on developing well-being and a lifestyle that supports it.

COMPARISON OF THE MENTALLY RETARDED TO THE NON-RETARDED

In recent years the training focus for mentally retarded individuals has been to prepare them to function in as normative a manner as possible in all aspects of independent living. To do this, it is necessary to evaluate the norms in the dominant culture. The norms for leisure, socialization and weight control and their interrelationship needs investigation.

Many things have changed in the American culture since President Garfield stated that two major challenges of the American public were: 1) the fight to get leisure and 2) the fight to figure out what to do with it once it is acquired. The American culture is fast moving towards a leisure oriented society with increased longevity, shorter work weeks, extended vacations, leisure suits and condominiums in Leisureland. However, many things have not changed since President Garfield's statement. The average American is still trying to determine how to manage leisure. Despite the recent emphasis on physical fitness and the running craze, Americans are being criticized for being overweight, inactive spectators. The "Life. Be In It." awareness campaign sponsored by the National Recreation and Park Association features a caricature of the American lifestyle in Norman Normal. In one scenario, beer-bellied Norman is sitting in his living room alone drinking beer and watching various sports events on T.V. As he changes stations by remote control, he laments that he is one of the few remaining true sportsmen. When his beer is finished he calls his son away from a game of ping pong to bring him another beer and a bag of potato chips, and then tries to get his disinterested son to join him in watching the televised sports. A friend stops by and invites

Norman to play basketball, but Norman refuses and complains that he can not find anyone to watch television with him. The attempts of other friends to get Norman out of his chair are equally unsuccessful.

With the recent health craze that has reportedly swept the nation, one may question if Norman is truly Mister Normal. Studies indicate that the answer is yes. It is estimated that 40 percent of Americans are overweight. Further, some fifteen million are in actual health danger because of obesity or extreme overweight. According to a 10-state medical study (Barnes, 1979), this problem begins in pubescence and adolescence, for 33 percent of boys and 39 percent of girls ages 11-18 years are overweight. The overweight phenomena is not surprising in light of a recent ABC News-Harris Survey (1979) which indicated that 84 percent of Americans named eating as their top leisure activity. Fifty-four percent reported that they eat frequently in their moments of relaxation, and another 30 percent said they occasionally indulge in eating to occupy their time. Close behind are a cluster of other relatively passive activities in which Americans engage: 41 percent mentioned watching television as a frequent pursuit, 40 percent listen to the radio, 39 percent mentioned reading and 39 percent listen to music at home. It is significant that the five activities that take the biggest slice of people's leisure-time all require a minimum of exertion. Twenty percent frequently spend time on hobbies. Nineteen percent frequently participate in sports; and 15 percent spend much time just getting away for a change.

If mentally retarded adults who live in group homes are representative of the mentally retarded population, they may be demonstrating many normative behaviors. A study of the time usage of group home residents in Washington State revealed a number of similarities to that of the Harris poll. Four hours each day (23% of the waking hours) were spent in unstructured activities such as watching T.V.; 3 hours (17%) were spent in low level activity, such as simply sitting, waiting or gazing in space; 0.8 hours (5%) were spent in organized activities such as games, hobbies and sports; 0.5 hours (3%) were spent simply leaving the house (Washington Department of Social and Health Service, 1976). Despite developments in training programs, this pattern has not changed appreciably since 1976. A recent pictorial survey of over 100 mentally retarded adults in Salem, Oregon found that radio listening and T.V. viewing were participated in most frequently. This was followed by eating with friends. Some frequently desired activities were socializing, dancing and cooking (Adkins, 1981).

COMPARATIVE SOCIAL PATTERNS

The studies reveal significant differences between socialization in the normal and mentally retarded populations. Despite their homebound orientation, the Harris poll shows that Americans still get out and participate in activities. Twenty-five percent reported that they frequently spend time on social activities such as dining out, going dancing and partying; 25 percent reported that they frequently spend their time having sex; and 23 percent spend their leisure hours deeply involved in church or club activities. In comparison, the group home study indicated a paucity of social interaction. Many spend the majority of their free time doing self stimulatory and repetitive activities,

such as rocking. Others are seen in the community doing age inappropriate activities, such as playing with dolls. Given the opportunity to interact with individuals that they know, many remain in their own worlds, sitting apart, gazing into space and doing nothing.

Other studies support these findings. A recent study of graduates of special education programs indicated that 60 percent never go out with friends. Mentally retarded individuals are less involved in group than individual activities (Mathews, 1979). While other adolescents are increasing social involvements through clubs and group activities, the mentally retarded are engaged in solitary activities, such as crafts and collections. They often encounter difficulty in their interactions with other people because they may be egocentric and lack social skills. The peer group which offers support for the normal adolescent to find an identity and transition into more independence is lacking. For normal adolescents, the peer group forms a highly complex social structure and testing ground for exploring both personal and interpersonal values and identity. In this transition the adolescent develops an ability to be close to and to participate in a special, exclusive relationship (Brier and Demb, 1978). The development of a sense of intimacy that results from the exclusive relationship of a best friend is a prerequisite for a mature adult love relationship, and an adult love relationship may not be truly attainable without this experience. The mentally retarded adolescent's tendency to lack both a best friend and a peer group creates additional obstacles to mastering the tasks of adolescence. Feelings of inadequacy, characterized by helplessness and dependency, often increase during this period. In addition to dramatic physical changes, such as the onset of menses and the development of breasts in females, the emergence of wet dreams in males and the growth of pubic hair in both, the adolescent encounters unfamiliar feelings towards the opposite sex and other physiologically triggered emotions. The body changes of pubescence may seem particularly strange and frightening to those who do not understand the changes or have a poor body image. The obese mentally retarded, in particular, may feel ashamed of their bodies and withdraw further from social contacts. Without intervention in the problems of social interactions and social behaviors encountered at this stage, there may be prolonged social immaturity.

Reduction of the present social isolation and maladaptive social behavior of mentally retarded individuals is not likely to occur without specific social skill training. There is increasing evidence that many developmentally disabled individuals will not develop social skills solely through the provision of opportunities to interact. Likewise, placing them in an integrated setting does not necessarily produce social interaction unless the social skills to interact according to society's standards are present. Integration becomes meaningful only when it involves social interaction and acceptance within the social value system. Social interaction skills, appropriate social behaviors and adaptive social skills are all needed to enable acceptance as a member of the group, to make friends and to participate in the mainstream.

COMPARATIVE LEISURE PATTERNS

Intervention through leisure education*is also warranted. The sedentary lifestyle of the mentally retarded may appear average when compared to other Americans, however, it is not a normal or healthy condition for the human body. Whereas most Americans have chosen this lifestyle for themselves, the mentally retarded are often sedentary because it is the only lifestyle they know. They may not know that there is more to life than a front porch. The Washington study indicated that over 50 percent of the group home residents' waking hours were available for leisure pursuits. Despite the fact that the mentally retarded generally have more free time than others, they are usually less prepared to manage this time. Few manage to generate leisure skills since they have had limited exposure and training. They often know the names of activities, but lack the skills to participate or the knowledge of what equipment they need to participate or where to go to participate. Many mentally retarded adolescents would lack the skills necessary to play Norman's son in ping pong. Their lack of spontaneity and/or self direction tends to inhibit the constructive use of leisure time and often leads to problem behavior during this time.

Even when taught leisure skills, many mentally retarded individuals will have difficulty generalizing these skills to settings outside the learning environment. One of the difficulties with transfer has been that the mentally retarded have not been taught to recreate in a normative manner. They have primarily been exposed to large group experiences of a structured nature where everything is provided through schools, work activity centers and community park and recreation agencies. In contrast, Americans' major recreation is in small groups in the home with family and friends. Americans' next major recreation source is with family or a few friends through commercial recreation, such as bowling alleys and movie theaters. This is followed by larger group activities such as clubs, churches, and interest groups and then by publicly run, structured programs. For the mentally retarded to participate in ways which are as close as possible to the norms and patterns of the mainstream of society, they need to acquire many pre-requisite skills and understandings.

The lack of leisure experiences accentuates the problem of social isolation. Recreation can also be utilized as a primary tool in fostering social interaction and the ability to get along appropriately with other people. Some of a child's earliest social skills, e.g., cooperation, are fostered through play experiences. Structured games often require and can foster adherence to set rules, willingness to collaborate, willingness to share and take turns, ability to control aggression and other socially acceptable behaviors. Activities carried on in groups can stimulate empathy, emulation, competition

---

*Leisure education is a process that facilitates the acquisition of leisure skills, the acquisition of social skills, the knowledge and utilization of resources, the development of leisure and self awareness, and decision-making relative to leisure.

and cooperation. In addition, Redl and Wineman (1952) have stated:

> Practically all so-called social skills needed in any society can be translated into some game activities which combine the value of acculturation and socialization with the experience of happiness and fun in the process.

Games encourage competition, cooperation and fortitude while they amuse.

Recreation may also have other benefits. It can provide a means for overcoming or compensating for limitations and gaining social, emotional and personal acceptance as well as a means for community participation, integration and normalization. For those who have limited employment opportunities, leisure becomes a primary means of pursuing fulfillment. For those who are employed leisure provides a worthwhile and necessary balance to work and work-related activities. In addition, leisure provides stimulation and purposeful activity needed to maintain an active interest in one's surroundings, in one's health, in social relationships and in work and life; such interest, in turn supports other maintenance, health and rehabilitative services, education and therapies. A positive attitude depends on satisfaction of self-esteem needs in tasks which have meaning and significance to the individual. Recreation can assist the mentally retarded to embrace life with enrichment and amusement.

Motor Problems of the Mentally Retarded

The need for training in leisure skills is not caused solely by the cognitive deficits which makes learning difficult. Many mentally retarded adolescents have perceptual motor and physical problems which provide additional difficulties. In spite of underachievement with respect to physical and motor function, the mentally retarded are much nearer the norm physically than mentally (Stein and Pangle, 1966). Research indicates that the moderately retarded are two to four years behind their normal peer in most measures of physical and motor proficiency and exhibit poor perceptual abilities (Rarick and Dobbins, 1972). The same authors found that the performance of retarded boys increased up to age 17, while retarded girls leveled off at about 14.

The Down's Syndrome individual has more problems with body image, balance, agility, catching and throwing. Cratty reports that they show improvement in perceptual tasks between the ages of 13 and 16:

> Prior to this age group, identification and positioning of various body parts is difficult. Catching and throwing of small balls is difficult and can only be achieved in the majority of children after sufficient practice with larger balls. It is almost impossible for this group to perform agility skills with any degree of accuracy.

In addition, Down's Syndrome individuals are often cardiopathic, have respiratory problems, are susceptible to respiratory infections, and also have hyperextensive joints.

Physical proficiency can be improved in the retarded as a result of a planned and systematic program (Winnick, 1978). Therefore, training in motor skills, particularly as they relate to leisure activities is important. Because of physical difficulties, as well as difficulty comprehending instructions for complex activities, the retarded achieve better in activities characterized by simple rather than complex neuromuscular tasks.

Leisure Activity and Weight Control

The lack of leisure skills and resultant sedentary lifestyle is also related to the problem of obesity in the mentally retarded population. Inactivity is an important factor in the frequency of overweight in the mentally retarded. Some recent studies indicate that the lack of physical activity is more often the cause of overweight than excess food intake. The lack of stimulation from physical activity can cause chemical imbalances that increase the body's tendency to build up excess fat (Bailey, 1978), in addition to causing weakness in muscle fiber and a host of other physical problems. Appetite in the sedentary actually increases when activity falls to a minimum; this may be an effect of boredom (Spectrum, 1963). Conversely, the obese person's appetite will not be stimulated by moderate exercise.

It has been shown in many exercise physiology laboratories that a steady continuous exercise repeated every day reverses the syndrome of making excess fat more quickly than any other kind of exercise. Aerobic exercise* is the most efficient way to remove the marbling fat and additionally changes the metabolism so that it will not make so much fat (Bailey, 1978). Although it is difficult for the overweight individual to exercise, it not only helps burn calories but aids in taking away in-between-meal hunger pains.

The benefits of aerobic exercise exceed weight loss and improved muscle tone. The physically fit person is better able to tolerate physical and mental stress, has a stronger and more efficient heart, and is usually more alert and energetic. The feeling of well-being is sometimes referred to as an exercise high and maintaining this high often becomes a major motivation for physical activity. However, to get the exercise high, one needs to develop a certain level of cardiovascular endurance. Many exercise programs are abandoned before the high is reached because they are unpleasant. To the extent possible, the need for regular physical activity should be met through sports and other forms of physical recreation that are enjoyable; otherwise

---

*Aerobic exercise refers to steady exercise that demands an uninterrupted output from the muscles over a minimum of 15 minutes. These exercises are characterized by demanding more oxygen over an extended period of time to train the cardiovascular system so that it becomes more efficient. It strengthens the heart, lungs and blood vessels.

the activity is likely to be abandoned or played only irregularly. The mentally retarded will exercise regularly only if it brings enjoyment, satisfaction and is appropriate to his/her environment. They need to experience activities that are intrinsically motivating.

What constitutes an aerobic exercise for individuals varies by the person's level of conditioning. For an unconditioned person, "running" in place by lifting the heels while keeping the toes on the floor may be an aerobic exercise. The mentally retarded generally have a low tolerance for physical activity; they literally move slowly and spend a great deal of time inactive. The fatter and more overweight a person is, the slower the exercise should be. Obese people may take three quarters of an hour to walk a mile while athletes can cover the same mile in 4 minutes.

COMPARATIVE WEIGHT PROBLEMS

Another area of needed intervention with mentally retarded adolescents is in the area of nutrition and weight control. Obesity is relatively common during adolescence. It is estimated that 10 to 15 percent of the adolescent population in the United States is obese and 33 to 39 percent are overweight to some degree. This is a particular problem for mentally retarded adolescents, because they generally possess a greater percentage of body fat than normal individuals the same age and sex (Rarick and McQuillan, 1977). In addition short stature and body build associated with Down's Syndrome appears to be related to a predisposition to obesity.

The mentally retarded face the eating temptations of the normal population. Eating is often a social occasion rather than a response to hunger in the normal population. The offering of food and drink has always been a sign of hospitability. An additional problem for the mentally retarded is that since food is often used as a primary reinforcer with mentally retarded individuals, it may also be associated with being good and seen as a desirable reward. Parents may see food as one of the few pleasures of their mentally retarded adolescent, and, therefore, be reluctant to limit food intake.

There are a number of health risks associated with obesity. The American Medical Association has repeatedly warned that one of the prime predisposing factors of coronary heart disease and early death from myocardial infractions is obesity. This is of particular concern for Down's Syndrome individuals as they are often cardiopathic. Overweight increases susceptibility to other disease, e.g., artherosclerosis, diabetis mellitis, joint disease, and gall bladder disease.

In addition to potential medical problems, obesity may adversely affect the adolescent's social relationships, school performance and emotional adjustment. If one activity promises to bump football and the Muppets as a national obsession in the 1980's, a good bet would be the art of dieting. In the (Diet) Pepsi Generation, to be overweight is an additional social stigma for the mentally retarded. Thinness is next to mandatory. One study indicated that fat, barrel-chested boys were viewed as having undesirable social traits,

had a lowered self concept and had difficulty with adjustment (Garcia, 1979). Not being able to get through a grocery turnstyle can affect other areas of daily living.

Obesity hinders success in physical activities and attainment of physical fitness and maturity. It also causes the individual to be at risk for injury in certain activities. For instance, jogging is not a good exercise for the obese because of the trauma to the knees and other joints. The discomfort and lethargy which frequently decreases the quality of life must not be thrust upon the mentally retarded. They must be educated so that they can choose how they look and feel.

The interrelated need for social, leisure and nutrition education is apparent, for knowledge and skills in one of these areas tends to affect the other two. The literature concerned with the understanding and treatment of obesity indicates that therapeutic regimens which have concentrated on only a single aspect of the problem such as diet or lethargy have been generally unsuccessful. The uniformly negative results clearly suggests that in order to be effective, a program designed to treat obesity must take into consideration the complexity of the problem. Various factors which appear to be significant in the successful treatment of obesity must be integrated into a single multifaceted program. Such a program would have four elements: basic nutrition, behavior modification or changing eating habits, increased activity and positive interpersonal relations.

SUMMARY

Preparing the mentally retarded to pursue a meaningful lifestyle in the mainstream is a great challenge to professionals. The mentally retarded need training in all areas of community living including recreation, socialization and weight control. The need to train mentally retarded adolescents concurrently in all three areas is evidenced by their interdependence. An individual who has acquired social skills may have limited opportunities to use these skills if s/he lacks other skills necessary for leisure participation or suffers society's insidious prejudice because of obesity. Similarly, the individual with leisure skills will be unable to participate in many leisure activities without social skills. Leisure participation is more difficult and less comfortable when one is overweight. In addition, obesity is often contributed to by withdrawal from social contacts and a lack of activity. A program which intervenes in these three areas concurrently is most effective in enabling moderately mentally retarded adolescents to utilize the new knowledge and skills in the community.

Professionals have to accurately identify competencies in these areas to successfully train the mentally retarded for community life. There is no room for complacency such as that of the Queen in Alice in Wonderland. "How can you possibly award prizes when everyone missed the target" said Alice. "Well" said the Queen, "some have missed by more than others, and we have a fine distribution of misses which means we can forget the target." Approximations

are not enough when the quality of life and well-being of individuals is at stake. The program model provides a systematic approach in which the targeted goals are not forgotten.

PROGRAM OVERVIEW

Because of overweight moderately mentally retarded adolescents' need for social, leisure and nutrition education and the interrelated nature of these areas, the model presented in this manual addresses these three areas in one program. The goals for the program fall into three basic areas: service to moderately mentally retarded adolescents with a weight problem, service to parents, and training for undergraduate and graduate students (trainees) from various health/helping disciplines. Specifically, the goals of the program are as follows:

I. Service to Moderately Mentally Retarded Adolescents with a Weight Problem

- Assess participant's social, leisure and nutritional skills, knowledge and interests
- Increase participant's social skills
- Increase participant's leisure skills
- Increase participant's physical activity level
- Increase participant's knowledge of nutrition and weight control
- Develop recommendations for dealing with the participant's present and future needs in these areas

II. Service to Parents

- Orient parents to the Crippled Children's Division and the program
- Establish a forum for information exchange between parents and program staff
- Provide a forum in which parents can share feelings relative to their adolescent son/daughter
- Encourage parents to use the program techniques in their homes
- Advise the parents on information collected on their adolescent during the program
- Provide and assist parents with referral and coordination of services both at the Crippled Children's Division and in the community

III. Training for Students

- Provide an opportunity to participate in pre and post session meetings as a full member of the program

- Offer an opportunity to develop and practice teaching and leadership techniques with moderately mentally retarded adolescents
- Provide an opportunity to demonstrate effective observation skills with moderately mentally retarded adolescents
- Offer an opportunity to employ effective behavior management skills with moderately mentally retarded adolescents
- Provide an opportunity to work with parents of moderately mentally retarded adolescents

SERVICE TO ADOLESCENTS

The program provides social, leisure and nutritional education using an educational-developmental model. That is, participants are trained in a developmental sequence beginning at their present level of functioning. The program is built on defined objectives based upon assessment. The program provides an assessment of moderately mentally retarded adolescents through a clinical process and/or the program milieu. A variety of daily data are taken on group and individual activities and behaviors.

The model is not a traditional curriculum that places total emphasis on cognitive objectives and didactic learning experiences. The program model utilizes techniques that touch the participant on a personal level and increases relevancy, namely behavior modification and experiential exercises. In addition, instruction is accompanied by discussion as much as possible. All learning is programmed in such a way as to give the participant maximum opportunity for success and reinforcement.

Participants are from 14 through 20 years of age. Participants attend the program one to two times a week for eight to twelve weeks. The staff conducting the program consisted of two therapeutic recreation specialists, one social/sex educator, and one nutritionist.

An example of program content follows. More specific information on services to the adolescents is provided in the Assessment and Program Implementation sections of this manual.

PROJECT RECREATE's

Program for Moderately Mentally Retarded Adolescents
(May 14 - June 27, 1979)

1. To assess leisure/recreation skills and interests:

   Cutting, pasting, coloring, decision-making, visual tracking, hand-eye coordination, directionality, rhythm, coordination, ability to follow directions, and self-initiation were observed and recorded through recreation activities.

2. To increase client's peer socialization.

   Appropriate social skills such as introducing self to others, wearing correct attire for activities, determining public and private places and the responding appropriate behavior in such places, dealing with strangers, etc. were stressed. Clients were also encouraged to interact with each other and were reinforced with verbal praise by the staff for doing so.

3. To increase client's physical activity level.

   Aerobic dance was utilized to increase cardiovascular endurance and activity level. Participants with parental support were encouraged to practice the routines 15-20 minutes 5 times a week. In addition, lead up activities for volleyball such as overhead pass, catching and hitting were taught. Identification of basic recreation equipment including frisbee, volleyball, basketball and playground ball and its use was introduced.

4. To increase client's knowledge of good nutrition.

   Clients were introduced through a game to the four basic food groups and were asked to identify certain foods in these groups. Concepts of fat and skinny were discussed along with foods which contributed to weight loss or gain. Low calorie snacks were provided.

5. To establish a forum for information exchange between parents and staff operating the summer program.

   Two meetings were held and information exchanged concerning recreation resources, socialization, nutrition and sex education. Parents were encouraged to use staff resources throughout the program.

FIGURE 1.

Although the program is of a short duration, many participants show dramatic changes. For instance, one 18 year old young man, who did not verbalize and whose movement repertoire consisted primarily of walking and rocking at the beginning of the program, was able to introduce himself using eye contact and to execute basic steps necessary for beginning aerobic dance at the end of the program. It is hypothesized that this is the outcome of structured instruction, praise for appropriate behavior and new stimulating peer and recreation situations. That such a short term program can have a measurable effect also demonstrates the unfortunate lack of previous training in these areas.

Siblings may be involved in the program. Parents are encouraged to bring normal adolescent siblings to the program. This can provide peer models for the participants as well as assist siblings to work more effectively with their mentally retarded sister or brother.

SERVICE TO PARENTS

For the learning to continue into the home and other community settings, parents must be involved. The program provides a forum for the parents of potentially obese, moderately mentally retarded adolescents to share information and concerns with each other and with professionals on the interdisciplinary team. The parent groups are designed around the characteristics and interests of the parents. Both parents are encouraged to attend although mothers are the most frequent attenders. The following beliefs underline the parent group component for the program:

- Parents need an opportunity to share their feelings and concerns regarding their adolescent son/daughter
- Parents need perspectives about adolescence to help them better understand their son/daughter
- Parents can benefit from training in specific ways to increase leisure, social and nutritional knowledge and skills
- Parents need information on resources available to them in the areas of leisure, social skill development and nutrition

The parent group has a dual emphasis on discussion of individual concerns and feelings, and education on recreation, social/sex education, and nutrition. The parent group is organized and directed by the program coordinator(s) with input from parents and the interdisciplinary team. In the programs run through Project Recreate, the expertise of two therapeutic recreation specialists, a social/sex educator, a nutritionist, and a nurse are available at each meeting. During the program the parents attend three to six evening parent groups for two hours each.

Discussing Concerns (Rap)

An important aspect of the parent group is the establishment of an accepting environment which enables parents to discuss concerns and feelings. No specific part of the meetings is designated to express concerns and feelings. The staff must be sensitized to the need to deal with concerns and feelings at all times. Parents often express a variety of feelings ranging from anger at professionals and agencies that had provided them with erroneous information about their child to confusion over what future living situation would be best. Generally, parents quickly realize that they have many common experiences and frustrations. These commonalities help to establish meaningful group interaction in a short time.

Providing Instruction

In addition to the opportunity to relate and deal with their feelings, parents need factual information regarding recreation, social learning, sexual development, diet management, medical concerns, the use of available services

and other information of interest to them. Members of the program staff can give presentations on topics such as those that follow:

- Recreation equipment and activities appropriate to age and developmental level
- Physical recreation skill development
- Community resources
- Nutrition and methods for changing eating behaviors
- Planning for the future
- Social skill development
- Physical activity and energy expenditure
- Sex education
- Medical care

Because of the limited length of the parent group, topics can not be provided indepth. Therefore, information presented must be relevant to the parents' understanding of the program and how they can implement it at home as well as be responsive to their concerns. The following outline of an orientation parent group illustrates content and time allocations:

Parent Meeting
July 19, 1978 6:30 - 8:30 p.m.

I. Greeting and Introductions - 5 minutes

II. Program Overview - 20 minutes

- A. Purpose of the program
- B. Approach to social, leisure and nutrition education used in program
- C. Program logistics, e.g., duration, transportation
- D. Parents' responsibilities in program implementation
- E. Questions and comments

III. Break - 10 minutes

IV. Nutritional Component - 45 minutes

- A. Energy expenditure through physical recreation and weight loss
- B. Use of pedometers and recording physical energy
- C. Changing eating behaviors

V. Social Skills Component - 30 minutes

A. The Sex Education Project

B. Concepts taught, e.g., appropriate and inappropriate

C. Comments and concerns

VI. Summary and Questions - 10 minutes

To illustrate the type of presentation appropriate to the parent group, examples of materials used in discussion is included in Appendix A of this manual. The presentations are designed to give parents suggestions on facilitating continued training within the home.

Interpreting Information on the Adolescent

An integral feature of the program is to provide parents with information on their adolescent's participation and an interpretation of that information relative to future life planning and community involvement. This process is described in more detail in the Assessment and Program Implementation sections, but will be reviewed briefly here. The parent group provides a sounding board for parental concerns. A home visit and/or individual conference(s) provide additional opportunities to express problems. Sometimes these concerns result in the scheduling of additional assessments. A synthesis of interpretations and recommendations are presented in informal discussions with individual parents after parent group meetings and over the phone. A copy of the final case summary is made available to parents upon request. Two copies of sample case summaries can be found in Appendix B.

Recommendations and Referrals

A final goal related to the parent group is to provide parents with appropriate referrals to the Crippled Children's Division Clinics and/or other community resources to help meet present and future needs. To facilitate follow-through on recommendations, copies of the case summary are sent to the adolescent's school and to other professionals involved with the adolescent, as requested by the parents. Phone calls and/or visits are made with school personnel, e.g., the adapted physical education consultant in the educational service district, to see if recommendations are feasible and can be carried out in the school environment.

Approximately six months after the completion of the program, parents are asked to evaluate the program. (See evaluation form in Appendix C.) In addition, parents are contacted to see if they have any remaining concerns related to the program.

STUDENT TRAINING

In addition to providing services to parents and adolescents, the program provides a training ground for undergraduate and graduate students. Trainees have come from such disciplines as therapeutic recreation, nursing, physical

therapy, occupational therapy, special education, and psychology. The program provides "hands-on" experience with moderately mentally retarded adolescents and their families. The students participate as a member of an interdisciplinary team.

Trainee as Program Staff

Trainees in the program serve in primarily one of three roles: 1) advocate, 2) program assistant, or 3) parent group facilitator. The advocates in the program make home visits and keep telephone contact with assigned families throughout the program. In this role, they assess the home environment, discover parental concerns, and act as a liaison with parents. Nursing students have acted as advocates extensively. Program assistants participate in the program at least one day a week. A graduate-level trainee with group process skills functions as a parent group facilitator during the program. This trainee is actively involved in the leadership of the parent group and acts as a resource person in his/her discipline area. Doctorate level trainees provide additional assessment and consultation on problem behaviors.

Trainee as Activity Developer

Trainees functioning in the role of a program assistant are given an opportunity to develop and lead at least one age and developmentally appropriate leisure activity and/or social training class. In addition, the students have the opportunity to develop learning situations utilizing their discipline's expertise. For instance, one nutrition student developed a game for teaching the four basic food groups.

SUMMARY

An overview of the program model was presented in this section. This program addresses the interrelated areas of social skills, leisure and weight control. To increase the effectiveness of the program, services are provided to both the mentally retarded adolescent and his/her parents. In addition, training opportunities for students from a variety of health/helping disciplines is offered. The subsequent sections of this manual will address specific organization and content of the program model and how these can be adapted to various settings.

PROGRAM ORGANIZATION

Before beginning the program, various steps for program design and administration must be completed. These procedures will ensure quality of service to clientele as well as smooth operation of the program. In many community agencies, programs are changed quarterly; as one quarter begins, the outline and preparation for the next quarter must begin. In both clinical and community service agencies, it may take from three to four months from inception to the commencement of the program model presented in this manual. Some of the necessary precursors to program implementation include:

- Identification of the population to be served
- Analysis of the needs of clientele
- Identification of the purpose of the program
- Determination of criteria for enrollment
- Identification of budget needs and available funding
- Analysis of staffing needs
- Development and implementation of means of meeting staffing needs
- Provision of staff training
- Design and implementation of means of recruiting participants
- Determination of number, length and spacing of sessions
- Identification of basic content
- Assessment of facility needs and facility availability
- Arrangements for use of facilities
- Analysis of equipment needs
- Identification of equipment resources and "purchase" of equipment
- Identification of transportation needs and establishment of strategies to meet these needs
- Establishment of record keeping system

The following section examines the steps taken to design the program model. Recommendations for effective alternative organization and design is offered. The steps and procedures are not listed sequentially. Many of the steps are interdependent and are developed simultaneously. Other procedures are ongoing during the program design stage.

POPULATION TO BE SERVED AND NEEDS

Moderately mentally retarded adolescents were identified as a target population in the original grant proposal. This group has some unique needs and characteristics. Homogeneous groupings by disability and age allow for

some tailoring of the instructional methods to the shared needs and characteristics of the group. The program model is aimed at those individuals who are clearly deficient in the skills, behavior and knowledge to be taught and need systematic intervention in these areas. It is important that this type of training is not offered for this population elsewhere in the community. Duplication of program efforts needs to be avoided; interagency cooperation can increase the quality of a program and prevent duplication.

One of the assumptions of the program model is that moderately mentally retarded adolescents who lack the targeted skills, behaviors and knowledge will not spontaneously develop in these areas and need more than the opportunity to participate. For instance, an individual without social interaction skills and/or inappropriate social behaviors is likely to be a wallflower at a dance whether it is segregated or integrated. Similarly, an individual is unlikely to spontaneously develop the ball handling skills, knowledge of rules, knowledge of program or facility resources and other requisites to participate in volleyball. The studies presented in the introduction to this manual, as well as clinical observation of this population by the project originators, indicated that moderately mentally retarded adolescents have training needs in the areas of socialization, recreation and nutrition.

PURPOSE OF PROGRAM

The major purpose of the program model is to present effective methods of upgrading skills, behaviors and knowledge relative to socialization, leisure and weight control of moderately mentally retarded adolescents that can be replicated in a variety of community settings. Intervention in these areas is aimed at developing normative and healthful behaviors that will be necessary for participation in the mainstream and will assist in the transition from childhood to adulthood. More specifically, the overall goals of the model program are:

- To expand participants' leisure skills
- To expand participants' involvement in physical activities
- To develop participants' understanding of good nutrition and weight control
- To improve participants' physical skills related to leisure pursuits
- To improve participants' social skills and peer socialization
- To expand participants' ability to be more independent and self-directing in social, leisure and nutritional areas
- To facilitate participants' success and satisfaction during recreation and social experiences
- To provide the opportunity to participate in an experience that is enjoyable.

CRITERIA FOR ENROLLMENT

The program model is for moderately mentally retarded adolescents. Since moderately mentally retarded individuals are characterized by delayed development, the program design is aimed at participants from fourteen to twenty years of age. This is consistent with service delivery to "handicapped children" of up to twenty-one years of age provided by the schools and by state Crippled Children's Services. Agencies will need to establish criteria based on their mission and unique service delivery. However, the following additional criteria is useful for the program model:

- Overweight. Although all mentally retarded adolescents could benefit from participation in the program, the model was specifically designed for those with a weight problem. For the purpose of the model, overweight is loosely defined as "observably overweight". Participants varied from ten to over a hundred pounds overweight.

- Current enrollment in a school program. This provides an agency that can provide information about the participant (with parents' written consent) and reinforce performance of areas taught in the program model. In addition, the school may be interested in continuing training in these areas.

- Behavior not harmful to self or others. Although some hitting and similar behaviors can be controlled through the behavior management techniques used in the program model, severely self-abusive or aggressive behaviors could interfere with conducting the program.

- Ability to provide self-care in toileting. Assistance in areas such as toileting take staff time, which is usually at a premium. Some parents would be willing to provide an assistant so that their adolescent could participate. If an assistant is used, it is better if this is not a parent, since one of the tasks of adolescence is to move towards independence from parents.

- Ambulatory. Although the training activities presented can be adapted to those in wheelchairs or otherwise limited in mobility, they have been piloted with ambulatory individuals.

- Ability to function in a group setting. The program is presented in a group setting and participants must be able to stay with the group and participate within this setting. Behavior management techniques can be used to work with those who tend to wander away from the group. Pairing staff or volunteer with an individual can be used to assist participation. However, some individuals will benefit more from intervention on a one-to-one basis.

- Indication that individual will benefit from training in the three areas. Not all moderately mentally retarded adolescents need training in the three areas. Others may lack requisite skills, e.g., attention span, that are necessary for this training. In the latter case, a high staff-to-participant ratio could facilitate involvement.

- Commitment of parent(s) or primary care provider(s) to continue the program in the home. Success of training beyond the program depends, in part, on continued encouragement and reinforcement in the home. Therefore, parent(s) or primary care provider(s) are required to attend parent meetings as well as reinforce particular behaviors and to keep some records of behaviors at home.

BUDGET NEEDS AND FUNDING

Some considerations in establishing budget needs are: costs for staff salaries, facility rental, equipment, telephone, mailings, duplication of materials, utilities, and transportation. Ways to limit costs in these areas are presented later. Funding is often a problem in this day and age of inflation. Some funding sources to supplement the agency budget include:

- Fee and Charges. A program can be made self-supporting by charging fees. This fee may be charged to the participant or a third party. The third party in a clinical setting might be an insurance carrier; in other agencies, it might be the state department responsible for services to developmentally disabled individuals. Because program development for the model was supported by federal funds for the purpose of service and training, there was no tuition charge in the pilot program.

- Contractual Agreements. Contractual agreements can be established with school districts, public social service agencies or private agencies. Personnel, transportation, equipment, facilities or funding could be provided by the contracting agency.

- Grants. Many governmental agencies and private foundations fund programs for the mentally retarded population. For instance, development of the program model was funded by a grant from the Developmental Disabilities Office, Region X. The salary of the social/sex educator and nutritionist involved in the design and piloting of the model were funded by separate grants from Maternal and Child Health.

- Donations by Organizations and Individuals. Local service organizations, such as Kiwanis, Lions, Rotary Clubs, the Junior League and various professional clubs as well as philanthropic individuals may donate funds.

- Fund Raisers. Money can be raised through rummage sales, bake sales, concessions at fairs and carnivals, as well as through movie and performance benefits.

STAFFING

To be most effective, the program should have a coordinator experienced with mentally retarded individuals and proficient in effective techniques of working with them. In the development of the model, a therapeutic recreation specialist functioned as the coordinator. The program was also staffed by a second therapeutic recreation specialist, a social/sex educator, a nutritionist and trainees from a number of disciplines. This staffing pattern is not possible in many agencies. Because staff both lead and observe activities, a minimum of two staff should be involved in each session. When professionally trained staff are not available, the program should be augmented with periodic professional consultation. Some groups may require additional aides to assist lower functioning individuals, collect data and support the general operation. Aides may be trainees, volunteers or personnel from contracting agencies who have leadership ability.

When volunteers are utilized, they should be selected the same as other staff. This includes a review of a personal resume and an interview. The volunteers' function in the program needs to be clearly defined. Establishment of a time commitment with a definite terminal date can further clarify expectations. The volunteer, like other program personnel, should be oriented to the facility, behavior management procedures, what to do in emergencies, etc. All personnel, including volunteers, should be given performance feedback to help them upgrade their skills.

Lines of authority and communication in the program should be clear. Program personnel should be responsible to the coordinator. If the program is a collaborative effort, administrative responsibilities should be precisely outlined in writing.

Adequate staff, trainee and volunteer training is essential to the operation of the program. Volunteers and staff must understand the purpose of the program, its goals and the principles of normalization. All staff should be supportive of the program's concepts. Staff, trainees and volunteers should receive training prior to implementation of the program to help them develop the following requisite skills:

- Flexibility and capacity for resourcefulness
- Enthusiasm
- Ability to work under pressure
- Interpersonal sensitivity
- Communication skills
- Knowledge of mental retardation, adolescent development, etc.

- Ability to record observations
- Ability to develop behavioral programs
- Ability to plan and present live modeling displays
- Ability to analyze and adapt activities
- Ability to initiate and facilitate training activities
- Ability to present material in concrete form
- Ability to deal with problems effectively
- Ability to manage problem behaviors

RECRUITMENT OF PARTICIPANTS

Some agencies, such as schools and residential facilities, have a captive population. Other agencies may want to utilize these agencies, health agencies, parent groups, and organizations for the mentally retarded to recruit participants. Although these agencies can not provide names of individuals because of confidentiality laws, they often distribute program announcements — flyers or letters — to potential participants and/or their parents and will announce the program in their newsletter or other publication. For instance, the local educational service district sent letters announcing the program to parents of potential participants of the pilot model programs. (See letter in Appendix D.) In addition, the specialized recreation division of the municipal park and recreation agency announced the program in their monthly mailing to parents and participants. Program announcements can also be made through newspapers, radio and television as well as posted on bulletin boards. A potential limitation to this last approach is that respondents usually require more screening to assess whether they meet enrollment criteria. Frequently, referrals to the program are made by health/helping professionals who work with the participant and can provide information about the participant (with parental consent).

The number of participants desired and male-to-female ratio needs to be established before accepting participants into the program. The optimal size of a group for effective training varies from six to twelve, plus two trainers, depending upon the functional level of participants. The limited size of the group allows for compatible groups of a similar level. Because of absenteeism and drop-outs, it's advisable to admit fourteen or fifteen participants to ensure an adequate size group. In cases where it is necessary to offer the program to a larger group, e.g. regular-sized school class, it is desirable to conduct training activities in smaller groupings. When there are two professional staff, an aide, a student or other adult who has been oriented to the procedures, the large group can be divided into appropriate sub-groups. Thus, the whole class would meet as a unit for instruction and discussion and then break into smaller groups of similar skill level for activities. Mixing the sexes is a normal part of the socialization process in adolescents, therefore, participants should be of both sexes.

NUMBER, LENGTH AND SPACING OF SESSIONS

If possible, training should occur at a rate of at least once, but preferably twice a week. Spacing between sessions is critical to provide the opportunity to try in real life, the skills learned in training. Session length should be determined by a number of factors, such as attention span, impulsivity, verbal ability, and other characteristics of participants. Two to two and one-half hour sessions have proven optimal. However, if attention spans are very short, the session can be as brief as twenty minutes. In such cases, more frequent sessions are advisable. Establishing the time of the program will depend, in part, on other programs for this population in the community. An after-school program — early afternoon in the summer and late afternoon during the academic year — was found to be best. Although there were many requests for a summer program, recruiting participants during the summer was sometimes difficult because they were involved in various summer camps or were vacationing with their families.

In accordance with the quarterly system used by many agencies, the participants attend the program for eight to twelve weeks. A schedule such as the following is designed for each program:

1:00 - 1:30	Briefing on session for day, staff and trainee responsibility, any changes in behavior management procedures, etc.
1:30	Participants begin to arrive and participate in social lounge
1:40 - 2:00	Social lounge coding
2:00 - 2:30	Social skills training
2:30 - 3:00	Nutrition education
3:00 - 3:45	Leisure education
3:45 - 4:00	ADL-Refreshments
4:00	Participants leave
4:00 - 4:30	De-briefing of sessions and recording of observations

This schedule provides a predictable environment and provides frequent enough changes to keep the participants' interest. Leisure education is left until last because it is often difficult to get participants to shift from the stimulation of these activities to other activities and also because participants may be fatigued after this part of the session.

BASIC PROGRAM CONTENT

The basic program objectives and content are developed based on the program goals, general needs and characteristics of moderately mentally retarded adolescents, as well as restraints and resources of the agency. An example of objectives and basic content to achieve the goals of the program model follows.

1. To expand participants' physical skills related to leisure pursuits.
   Each participant will demonstrate a higher level of leisure functioning or new leisure skill at the end of the program as determined by one or more of the following:

   a) Perform at a higher level on 20 percent of the Mundy and Purdue items including ball handling, e.g. catching; manipulation, e.g. tracing circles; rhythms, e.g. clapping slow 4/4 during post-test in the P.T. gym.

   b) During the program, perform three skills not demonstrated in the pre-test of the Mundy and Purdue surveys as reflected in the daily observational notes.

   c) At home, perform at least one new leisure skill as reported by parent(s) or primary care provider(s).

   Increasing ball handling skill with an 11-inch playground ball will be stressed. These will include kicking, catching, throwing, fielding, and volleyball skills, such as the overhead and dig passes. In addition, lead-up activities to kickball such as running bases will be included. Identifying recreation equipment such as frisbee, volleyball and soccer ball and its use will be introduced.

2. To expand participants' involvement in physical activities.
   During the duration of the program, each participant will increase the distance covered daily by 40 percent from baseline to the end of the program. This will be measured by parents' daily recording of distances indicated on pedometers worn by participants.

   Participants' motivation and ability to be actively involved in physical activities and, therefore, increase activity level will be emphasized through the activities outlined under Goal 1.

3. To develop participants' knowledge of basic nutrition.
   During the program, each participant will match 10 foods with the food group it belongs to with 80 percent accuracy. Given food models, each participant will put together a balanced dinner, 2 out of 4 trials.

   The four food groups will be stressed. Participants will identify foods according to group and plan meals including a food from each group.

4. To improve participants' social skills.
   During 20 minute observation in unstructured time, each participant will appropriately initiate or respond to an invitation to engage in an activity at least one time.

Appropriate social skills such as introducing self to others, wearing appropriate attire for activities, dealing with strangers, identifying public and private places along with corresponding acceptable behaviors, and inviting others to do something will be discussed and practiced.

5. To develop participants' independence and self-direction in the recreation program.
During unstructured time, each participant will get out equipment and organize his/her own leisure activity and subsequently put the equipment away without staff direction 80 percent of the time after six sessions.

Participants will be introduced to various leisure activities and where the equipment is kept for these and other activities. Rules will be established for equipment use and participants will be encouraged to self initiate activities during unstructured time as well as take responsibility for equipment in structured activities.

THE SETTING

The more space available for the program, the better. Basically four types of spaces are needed: a gymnasium for physical activities, a crafts room for crafts activities, a classroom for social and nutritional instruction and discussion, and an outdoor area for physical activity. In most facilities, however, space is limited and one area may need to serve several purposes. Some things to consider when arranging for the use of a facility are:

- Lavatories. Lavatories should be near the program area to minimize the need for staff supervision.

- Lighting. A combination of natural, fluorescent and incandescent lighting is recommended. Fluorescent lighting alone tends to distort and confuse distance judgment due to the absence of shadow. More light is needed where a lot of eye-hand coordination is needed, e.g. crafts and ball handling activities.

- Climate control and ventilation. Provision should be made for even heating and cooling. Special consideration should be given to adequate ventilation.

- Outdoor recreation area. An outdoor recreation area should be level and include a smooth, paved area as well as a grassy area.

- Storage space. Adequate storage space is essential. All equipment which can not be left out should be stored near the program space.

One major principle for encouraging the transfer of behaviors from the training setting to the real life setting is that it be as similar as possible to where the participant will normally perform the behaviors. Therefore, the

program should be held in a normal community facility, near the participants' home, whenever possible. When an agency does not own an appropriate facility, they may be able to arrange for donated or low cost space from one of the following:

- Community Center
- YMCA
- YWCA
- Store Front
- Schools
- Boys Club
- Girls Club
- House
- Church
- Social Agency
- Fraternal Organization
- Armory

EQUIPMENT

A number of options exist for the "purchase" of equipment. Many stores will give a discount or donation to non-profit organizations and agencies serving the handicapped. Private citizens will often donate new or used equipment. Equipment can often be borrowed from other social service agencies. Another alternative in line with normalization and taking responsibility is to have participants move towards bringing their own equipment. This can lead to problems if the participants forget to bring the equipment. On the other hand, it can be a lesson in responsibility and consequences, which is part of gaining more independence in leisure pursuits. If this technique is used, it is important to assess the participants' ability to bring equipment. If the participants could not afford the equipment, the whole program could be a failure.

Some of the basic equipment needed in the program are:

- Crafts Tables
- Chairs
- Blackboard
- Mask
- Food Models
- Magazines
- Photographs
- Records
- Pedometers
- Slide Projector and Screen
- Table Games, e.g. Parcheesi
- Volleyball Net
- Cards
- Frisbees
- Assorted Kitchen Utensils

Miscellaneous Crafts Equipment:

- Assorted Paper
- Scissors
- Glue
- Crayons
- Macrame' Cord

Basic Woodworking Tools:

- Hammer
- Nails and Screws
- Screwdriver
- Boards

Balls:

- 11-inch Playgound Ball
- Volleyball
- Soccer Ball
- Tennis Ball
- Football

TRANSPORTATION

One of the biggest problems in recruiting participants is transportation. Participants are frequently driven by families or friends individually or in a carpool. Although families frequently organize carpools on their own, they

may need some assistance to do so. Mobility training to use public transportation is a part of most special education curricula in urban areas. Therefore, taking the bus may be an option for some of the higher functioning participants, if the facility is centrally located. Public transportation is often offered at a reduced rate for the handicapped. However, some mobility trained participants may not be able to afford the bus. In such cases, social service agencies can sometimes help with bus fares. If the facility is close enough, some participants will be able to walk or ride their bicycles. There are also volunteer bureaus and service clubs, e.g. Kiwanis, Lions, that can be contacted to provide transportation for participants.

Sometimes the agency will need to provide the transportation. This is often the case when the facility is not centrally located, is in a rural area, or is in a lower socio-economic area. An agency may purchase, borrow, or find a group to donate a van. Volunteers with a chauffeur license can be utilized to transport participants. Agencies that are not in the business of providing this type of program can contract with schools, health agencies, or private organizations for the provision of transportation services.

To allow for maximum involvement of trainees, the pilot programs were conducted in a clinical facility that is not centrally located. The Project transported participants to the program in taxi carpools and, whenever possible, parents drove participants home individually or in carpools. Since participants lived in various parts of the city, it was more economical to send small groups in taxis than to utilize the bus service used by the schools.

RECORD KEEPING

A critical component in the accountability of the program model is record keeping. This includes attendance records for participants as well as for trainees and volunteers, records of purchases, individual goals and objectives, program plans, evaluation forms, etc. It also includes written observations on the participants so that change can be measured.

SUMMARY

Planning for the program generally needs to start three to four months in advance of program implementation. Many aspects of program design and administration need to be established. The following reflects a timeline for program development:

Date	Action
3/10/78	Initial organizational meeting on program
3/17/78	Memo to educational service district announcing intent to provide program
3/29/78	Meeting to establish goals and objectives for program

Date	Action
3/30/78	Conversation with educational service district supervisor
3/31/78	Letters sent to educational service district to give to parents
4/8/78	Meeting to establish basic program content
4/16/78	Room reservations for assessment and program
5/10/78	Exploration of strategies to order supplies
5/14/78	Arrangements for psychology and special education trainees' involvement
5/17/78	Arrangements for physical and occupational therapy trainees' involvement
5/22/78	Meeting to explore use of private bus company for transportation
5/23/78	Conversation with taxi company for estimates
5/29/78	Meeting on program logistics
6/8/78	Purchase of equipment
6/9/78	First assessment clinic
6/9/78	Meeting on individualized objectives
6/10/78	Organizational meeting on program
6/14/78	Organizational meeting on program
6/16/78	Arrangements for nursing trainees' involvement
6/16/78	Assessment clinic
6/16/78	Meeting on record keeping system
6/23/78	Assessment clinic
6/28/78	Orientation and presentation to trainees
6/29/78	Training for trainees
6/29/78	Organizational meeting on program
7/3/78	Parents called to confirm participation
7/5/78	More parents called to confirm participation
7/5/78	Organizational meeting on program
7/5/78	Finalization of arrangement for taxis
7/5/78	Letters sent to parents regarding program and parents group
7/6/78	Finalization of program content
7/6/78	Training for trainees

Date	Action
7/6/78	Finalization of record keeping system
7/10/78	First day of program

ASSESSMENT

Assessment is a necessary precursor to program development. Since moderately mentally retarded adolescents have some of the same characteristics and needs relative to socialization, leisure and weight control, they are grouped together under the same overall goals and objectives in the program model. However, to provide the optimal learning experience for the individual within the group, it is important to establish specific individualized objectives and identify appropriate training strategies for each participant. Before identifying the training activities and setting the individualized objectives for participants, it is important to identify:

- Specific problems related to socialization, leisure and weight control;
- Awareness, knowledge and skills relative to these three areas;
- Present functioning in the three areas.

Therefore, assessment requires a multidimensional evaluation of the individual and his/her living environment, as well as his/her past and present patterns relative to socialization, leisure and weight control.

The program model utilizes a multifaceted assessment approach characterized by pre-program assessment, ongoing evaluation and post-program assessment. Consistent with behavioral and learning theories, this model assesses individuals within a behavioral framework. Assessment and intervention are integrally related in this model. Assessment is ongoing, so that the training can change as an individual's performance changes. Some of the pre-assessment techniques can also be utilized in post-assessment to evaluate how well individual objectives have been met.

There are many ways that behaviors can be assessed within a behavioral framework. Because an individual's functioning may differ in various situations, the use of only one assessment may provide misleading information. Therefore, several methods of assessment are used in this model. These include:

- Interview(s) with parent(s) or other primary care provider(s) about the participant's social, leisure and nutritional behavior
- Informal interview(s) with classroom teachers or other school personnel about the participant's behavior related to the three areas
- Direct observation of skills and knowledge in the three areas in a structured testing situation
- Direct observation of the participant's behavior in an unstructured situation

This section presents an indepth examination of these assessment techniques. Two assessment packages are presented. One is appropriate for clinical and other settings where assessment is administered by several different disciplines on a one-to-one basis. The other is appropriate to community settings where transdisciplinary personnel work exclusively in group settings.

THE ONE-TO-ONE APPROACH TO PRE-PROGRAM ASSESSMENT

Clinical and school settings frequently provide assessment on a one-to-one basis. The pre-program assessment model provided in a clinical setting includes:

- Medical history and examination by a physician
- Nutritional history through interview with parent(s) and participant by a nutritionist
- Leisure history through parent interview by a therapeutic recreation specialist
- Leisure related skills assessment and participant interview by a therapeutic recreation specialist
- Social history through parent interview by an educator, nurse or therapeutic recreation specialist
- Present school performance through conversation with school personnel by a therapeutic recreation specialist

Assessments that involve the participant only can be done on separate days, as it fits into the participant's schedule, when there is a captive audience, e.g. school settings. Parent or primary care provider interviews should be conducted on the same day to save these individuals repeated trips to the agency. The following is a sample schedule for a clinical setting:

Participant A:

8:00	1125	Staffing(s)
8:30	1243	Pediatrics - Carlson
9:30	1243	Parent Recreation Interview - Leitschuh
P.T.	Gym	Adolescent Leisure Assessment - Coyne
10:30	1243	Nutrition - Cunningham
11:30	1243	Social Interview - Keiter
1:30	1243	Case Conference

Participant B:

9:30	1231	Pediatrics - Carlson
10:30	1231	Parent Recreation Interview - Leitschuh
P.T.	Gym	Adolescent Leisure Assessment - Coyne
11:30	1254	Nutrition - Cunningham
1:00	1254	Social Interview - Keiter
2:30	1254	Case Conference

Interviews of Parent(s) or Primary Care Provider(s)

An assessment method utilized by all the disciplines is interviews with parent(s) or other primary care provider(s) as informants. The interview is a useful pre-program assessment tool for gathering information about the participant's knowledge, skills and behaviors, which will aid in the development of objectives. When conducted by a trained person, the interview has a high degree of validity and reliability. Some authors (Dahl, 1978) even claim that one can get more valid information from a good interview with parents than from observation.

Interview Techniques

The following guidelines for interviewing parents and primary care providers will facilitate establishing rapport and carrying out an effective interview. These guidelines also apply to interviews with participants and school personnel.

- Conduct the interview in an environment characterized by privacy, freedom from interruptions and a general atmosphere of calmness.
- Start by letting the parent know that his/her willingness to meet is appreciated.
- Let the parent know that you want to plan the best program possible for his/her adolescent and that you need his/her help to do so.
- Find out if the parent is familiar with the intent of the program and the facility. Provide the parent with supplemental information on the program and facility, as needed.
- Listen carefully and attentively, being alert to feelings and attitudes expressed, as well as to answers given.
- Encourage the parent to talk freely by establishing a permissive atmosphere.
- Provide enough guidance to keep the conversation to the point, but do not lead or put words in the parent's mouth. Open-ended questions get the most extensive and spontaneous responses. Avoid yes and no questions.
- Provide opportunities for the parent to ask questions and express concerns. Be frank and open about answering them. Do not be afraid to admit if you do not know the answer to a question.
- When talking to the parent about his/her moderately mentally retarded adolescent, refer to the individual by name or as "your son/daughter". Refer to the participant's handicapping condition(s) only when information is needed relative to the condition(s).

- Close the interview within a reasonable period of time. Provide concrete information about the next step in the process, e.g. who the parent will see next, how the information will be used, when the program will start.

The interview is often the parent(s)' introduction to the facility and the staff. It is important that the interview experience be a pleasant one that generates confidence in the program and its staff. It must elicit the parent(s)' enthusiasm and cooperation, so that s/he is motivated to participate in the parent group and to carry out the program at home. The program will train the participants in specific skills, but these skills will extinguish if they are not reinforced in the home.

Medical History and Examination

Most weight control programs recommend that a physician be consulted before embarking on the program. This is of particular importance with the moderately mentally retarded since they may have medical complications such as seizure disorders. It is important to know about medications that the individuals may be taking that effect activity level, weight and behavior. If a participant is Down's Syndrome and cardiopathic, limits of physical exertion need to be established. Physiologists, physicians and heart specialists agree that proper exercise is beneficial even for people with bad hearts, however, maximum exertion for the participant needs to be established.

The physician takes a medical history from the parent(s) or other primary care provider(s) which includes genetic, environmental, growth and development, neurological and other questions relative to an appropriate review system. Unless the participant's presence is required during the medical history interview, it is better to have him/her occupied outside the examination room. The potential facilitating impact of this approach for the participant is that it:

- Avoids embarrassment and/or anxiety if certain subjects come up
- Avoids boredom
- Avoids "being talked about"
- Provides opportunities to be involved in something else

The potential facilitating impact on the parent(s) or primary care provider(s) is that it:

- Avoids inhibition about speaking freely
- Avoids splitting attention if participant is acting out

The length of the medical history interview is approximately 10 minutes, but varies. Therefore, whatever the participant is involved in must allow for a smooth, non-disruptive interruption. This time can be utilized to familiarize the participant with the facility and staff, as well as to observe the participant's behavior in a new environment without the presence of parent(s)

or primary care provider(s). Some activity possibilities for the short duration of the medical history interview are:

- Chart a pathway in some part of the facility that offers stimulation along the way. Time how long it would take to walk slowly.
- Have on hand a number of age-appropriate toys, games, and other pieces of recreation equipment. Invite the participant to pick out something s/he would like to play with, or ask if s/he would like to play something with you. This will provide a chance to see how the participant functions recreationally. If you do invite the participant to play with you, make sure you do so in a relaxed, friendly, non-threatening manner. This should not be an invitation to be tested. It should be a friendly invitation to play, and should be perceived as such.
- Develop a bright colored chart (poster type) in felt and have letters, symbols, etc. available for use in making designs as a means of finding out more about the participant's cognitive functioning.
- Show the participant around and tell him/her about some of the activities that might be offerred, noting which ones s/he expresses particular interest in, if any. While on this tour, ask the participant some questions, starting with those that will put him/her at ease, e.g. talk about a favorite T.V. show; a pet; or a favorite vacation spot; what s/he did last summer at camp, etc.
- Devise a "scavenger hunt". Have some items that participant should find — either in a room or along a walk. Plant something along the way.

Physical Examination

The physical examination includes neurological and developmental parameters. Radiographs, laboratory and other diagnostic procedures are utilized when the need is indicated by the physical examination and medical history. The presence of the parent(s) or primary care provider(s) during the physical examination should be at the discretion of the physician. Some physicians prefer to ask questions of both parents and participants during the examination, while others prefer to see adolescents by themselves.

Availability of a physician to perform a physical examination is generally limited to clinical facilities. When this service is not available in the facility, participants should be required to return information from their physician that relates to program participation. An example of such a report may be found in Appendix E. Some programs have found physicians who are willing to donate their time for this purpose.

Nutritional History through Parent Interview

Because the program is targeted at moderately mentally retarded adolescents with a tendency towards obesity, the expertise of a nutritionist is important to have, whenever possible. The nutritionist conducts an interview of approximately one hour with parent(s) or primary care provider(s). Through the interview, the nutritionist determines the nutrition education needs of the moderately mentally retarded adolescent, the parent's motivation to take responsibility for implementing a weight control program at home, and how physical, social and private environments contribute to the weight problem. The parent's willingness to correct the participant's caloric imbalance, be consistent with behavior modification relative to food intake, and encourage and monitor physical activity is critical to weight loss and continued weight control. Although many moderately mentally retarded adolescents lack the cognitive ability to truly understand nutritional needs, attitudes and examples set by parents, along with positive experiences and nutritious food can establish good food habits.

In assessing the nutrition education needs, the nutritionist evaluates food awareness which includes:

- Food recognition
- Food likes and dislikes
- Typical 24-hour food diary
- Frequency of eating foods in all categories
- Meal planning skill
- Participation in food preparation

The nutrition history also includes:

- Medications used
- Vitamin supplement used
- Frequency of constipation or diarrhea
- Fluid intake

In addition, the nutritionist evaluates how much the potential participant is overweight through height-weight measurements and a skinfold test with calipers. A sample report on the nutrition assessment can be found in Appendix E.

Leisure History through Parent Interview

In order to develop individualized objectives for the development of leisure knowledge and skills, it is necessary to obtain information about the individual's present and desired leisure pattern, internal variables that effect participation, and external factors that effect participation. An interview with parent(s) or other primary care provider(s) can provide a basic leisure profile of the mentally retarded adolescent. The information yielded

from such an interview appears to be reliable, for when the parents' report of participants' abilities were compared to direct observation made in a structured test situation, there was over 90 percent agreement between data.

Dimensions in Assessment of Leisure Functioning for
Project Recreate's Moderately Mentally Retarded Adolescent Programs

Leisure Lifestyle Interview with Parent(s) or Primary Care Provider(s)

I. Recreation/Leisure Pattern
   - A. Present recreation/leisure pattern
     1. Special interests*
     2. Types, i.e. educational (reading), arts and crafts, table games, active games and sports, organizations, etc.
     3. Level of participation
        - a. Level of activity: passive, active
        - b. Skill level
        - c. Frequency
        - d. Length of participation during one activity period
     4. Occasion of participation
        - a. Days and times of leisure participation
        - b. Place of participation, i.e. school (classroom, non-academic, extracurricular), community, church, home
     5. Directiveness (during leisure)
        - a. Type of directiveness (self-directed, other-directed, or commanded by others, not influenced by others)
     6. Relationships (during leisure)*
        - a. Amount of solitude
        - b. Number of friends
        - c. Ages of friends
        - d. Relationship with friends (casual, chum, love)
        - e. Interactions with friends
        - f. Amount of time spent with friends
        - g. Role in group (leader, follower, bully, scapegoat, etc.)
        - h. Quality of interactions (warm, genuine, giving, demanding)
   - B. Desired Future Recreation/Leisure Pattern
     1. Desired leisure involvement
        - a. How indicated by adolescent
        - b. How indicated by primary care provider
     2. Perceived obstacles to desired leisure involvement

II. Internal
   - A. Attitude toward free time and leisure activities
     1. Amount of interest in leisure
     2. Degree of motivation to undertake leisure activities
   - B. Aptitude
     1. Things person is good at
        - a. Natural talents
        - b. Learned skills
   - C. Affective status
     1. Dominant mood (happy, depressed)
     2. Amount of impulse control
        - a. Frustration tolerance
        - b. Persistence (percent of task completed, amount and kind of supervision or encouragement needed)
     3. Attention span (average length of time person attends)

III. External
   - A. Family milieu
     1. People live with (ages, nature of relationship)
     2. Interests shared with household member, frequency done with*
     3. Places household members interact most frequently*
     4. Personal and group recreation equipment in home, i.e. T.V., bike, stereo, pet, camera, stamp collection*
   - B. Socio-economic status
     1. Type of neighborhood and home situation*
     2. Amount of money available to spend on leisure*
     3. Public and private recreation facilities in neighborhood*
   - C. Leisure time
     1. Days and times of discretionary time
   - D. Concerns of Primary Care Provider*
   - E. Expectations of the program*

*Assessed also through home visit and interview by nursing students

FIGURE 2.

Collection of data from the informant in the areas outlined takes approximately one hour. The interviewer should ask stimulating questions that will generate the information in several of these areas. The chart below can be used to systematically gather some of the information needed.

SAMPLE QUESTIONS FOR LEISURE INTERVIEW WITH PRIMARY CARE PROVIDER(S)

PRESENT What special interest does your son/daughter have?	What does s/he do in ...? To what extent does s/he participate?	How often does s/he do .....?	Where does s/he do ..?
With whom (age, sex, relationship) does s/he do .....?	How does s/he get involved in .....? How does s/he get to .....?		
FUTURE What new activities would your son/daughter like to participate in?	How is this interest indicated by your son/daughter?		
What has kept your son/daughter from being involved in this in the past?	What new activities would you like to have your son/daughter involved in?		
Why are you particularly interested in these activities?	What has kept your son/daughter from being involved in such activities in the past?		

FIGURE 3.

Information generated from these questions is important. What a person actually does in an activity of interest is important to assess because it indicates skill level. For instance, if basketball is listed as a special interest it could mean throwing a ball in the air and catching it, bouncing it, throwing it into a basket, playing Horse with one or more peers, playing an adapted game of basketball or playing regulation basketball. All of these represent different levels of recreation and social interaction skills. It can also indicate their role in a group, e.g. follower, aggressor, or leader. The frequency with which a person participates in an activity can suggest amount of interest, opportunity and other variables. The place where a person recreates can indicate knowledge of community and personal resources, type of program and facility preferences. For instance, it may develop that a person likes to swim only at lakes and rivers because s/he does not like chlorine, crowds or being restricted. Identifying friends and the ages of and relationships to these friends supplies further information about social interaction patterns during recreation. Socialization is a critical component in adolescence. Some individuals do not have a concept of age comparison and do not know if a friend is younger, even if the friend is five or more years younger. How an individual gets involved in an activity helps determine self-initiation, motivation, and awareness of resources. How a person gets to an activity gives information about mobility independence. Additional information on leisure interests, occasion of participation, directiveness during leisure, and relationships during leisure can be acquired by having the parent describe a typical Saturday and typical Tuesday after school.

Data on desired activities for the future is important to collect because it further indicates activities that may be used to motivate the participant. It also reveals awareness of leisure activities and how realistic the individual is in leisure desires. Initiative, degree of interest and persistence can be assessed through how the interest is indicated. Perceived barriers to participation may provide further information on awareness of community and personal resources, mobility, personal finances, etc.

The other dimensions in assessment of leisure functioning may be approached in a similar fashion. The collective responses to the questions provide the data for the leisure profile. To identify and assess leisure needs, it is necessary to note deviations from an ideal leisure pattern, which is self-initiated, balanced, has variety and meets personal needs. Such a lifestyle is characterized by a knowledge and understanding about personal and community leisure resources, skills for leisure participation, social interaction skills, personal interests and values related to leisure and decision making. The interview with the parent can yield the necessary information to assess the participant's leisure functioning. This information is critical to appropriate program development. A sample report of such an interview can be found in Appendix E.

Leisure Related Skills Assessment and Participant Interview

To assess dimensions that are important developmentally and/or for leisure participation, two formal instruments, the Mundy Recreation Inventory and the Purdue Perceptual-Motor Survey, are utilized. Supplemental information on interests as well as present and desired leisure participation is gathered through an informal interview with the participant. The areas assessed are as follows.

Dimensions in Assessment of Leisure Functioning for
Project Recreate's Moderately Mentally Retarded Adolescent Programs

Mundy Recreation Inventory

I. Object Identification
II. Action Concepts (give, pull, pick-up, etc.)
III. Amount Concepts (counting)
IV. Egocentric and Objective Localizations (position, place, spatial relationships, directionality and laterality)
V. Manipulative Skills (fine motor coordination: tracing, coloring, cutting, threading)
VI. Color Identification
VII. Following Serial Directions
VIII. Gross Motor Skills (eye-hand and eye-foot coordination: catching, throwing, kicking)

Purdue Perceptual-Motor Survey
(Only areas screened in this program are listed)

I. Balance (dynamic and static)
II. Locomotion (skip, hop, jump)
III. Identification of Body Parts (body image)
IV. Imitation of Movements (laterality-unilateral, bilateral and cross lateral)
V. Obstacle Course (directionality)

Interest Interview with Adolescent

I. Special Interests
II. Present Leisure Involvement
III. Desired Leisure Involvement
IV. Relationships

FIGURE 4.

The Mundy Recreation Inventory for the Mentally Retarded (1966) is an individual assessment instrument that takes about one hour to administer. It assesses various dimensions that have been identified to be important either developmentally or for participation in leisure activities. Items on the Purdue Perceptual-Motor Survey supplement the Mundy items. Only items that

could receive some intervention in the program model were used from the Purdue Perceptual-Motor Survey. A quiet, pleasant environment, that does not look too "official" or "medical" and that is free from distractions and interruptions, facilitates accurate assessment. In administering the surveys, it is advisable to leave the gross motor items until last. Participants tend to like the gross motor items and it may be difficult to get them to focus attention on other tasks after physical activity.

In general, it is easier to get information from mentally retarded adolescents when they are involved in doing something. This may be because it appears less formal and they do not feel as pressured to respond with the correct answer. A number of questions can be asked while walking to and from the examination room or during breaks in testing. Some sample questions follow:

- What do you do with your mother/father/sister/brother that is fun?
- What game/sport/hobby would you really like to learn?
- What is the best birthday/Christmas present you ever got? Why did you like it?
- What do you do at home for fun?
- What is your favorite T.V. program?
- What is your favorite part of physical education?
- What are three things you really like to do?
- What are the names of your best friends? How old are they? What do you do with them?
- What is something that you are really good at?
- How much money do you get for an allowance? What do you spend it on?

A sample report on this assessment can be found in Appendix E.

The assessment of leisure function is of extreme importance. First of all, it provides data from which to develop a program which builds on the participant's strengths as well as weaknesses. Second, it provides adequate information to develop a program based on the total needs of the participant. Some programs will not be able to afford the staff time to administer the Mundy Recreation Inventory and Purdue Perceptual-Motor Survey. Many schools now do testing in the areas addressed by these instruments through physical education, physical therapy, occupational therapy, and special education. Parents are frequently willing to sign releases so that agencies outside of the school can utilize this information in programming for their son/daughter.

Social History through Parent Interview

In assessing the participant's socialization it is important to evaluate social interaction skills, appropriate social behaviors and social adjustment. Social interaction patterns are assessed in the leisure interview. Additional questions may be added to the leisure interview or asked in a separate interview. Other questions are designed to determine the participant's knowledge of sexuality as well as to examine the parent's and participant's attitudes and interest relative to social-sexual behavior, such as dating, marriage and parenting. Information regarding planning for the future is also important. Programs that lack staff time to conduct the interview may use volunteers or trainees to conduct the interview at the facility or in the participant's home.

Present School Performance

With the advent of the Education for All Handicapped Children Act (P L 94-142), schools must have an individualized education plan (IEP) for each handicapped child. Since physical education is identified as a part of special education, a part of the IEP addresses assessment of the individual's physical education needs and the plan to meet these needs. This is an area where the school can provide valuable input into program design. In addition, classroom teachers have valuable information on problem behaviors, behaviors in group situations, socialization, cognitive functioning, etc. Most parents will sign a release to allow for information exchange between the school and other agencies involved with their son/daughter.

The multifaceted approach to pre-program assessment on a one-to-one basis presented in this section provides cross-verification of entry skills. It forms a solid base from which to develop program content and instructional strategies that will best facilitate the individual's development and forms a basis for accountable programming.

GROUP APPROACH TO ASSESSMENT

Many community agencies do not have the personnel to conduct assessment on a one-to-one basis and, therefore, may not do formal assessment. Project Recreate developed techniques to conduct assessment in a group setting which can be used by agencies with limited staff resources. In addition to being an integral part of the program, this assessment approach has the advantage of assessing skills in a more natural and relevant situation. Initial comparisons between the group and individual observation of skills revealed that the participants generally demonstrated slightly higher skills in the group situations (Coyne, 1980). The model group assessment appropriate for various community agencies includes:

- Discussion with parents in a parents' group
- Home visit by trainees or volunteers
- Observation of skills in structured testing situation
- Observation of skills in unstructured situation

Discussion with Parents

During the first parent group meeting parents discuss their concerns about their son/daughter relative to socialization, leisure and weight control. A warm, sharing, accepting environment needs to be established to facilitate this type of sharing. Since many parents feel reserved at this first meeting, it is helpful to break down into small groups of about three parents to one staff, trainee or volunteer. This will also facilitate data collection by the staff involved. Parents may also be given a questionnaire to complete which will provide individual information on each participant relative to social, leisure and nutritional patterns. Questions such as those asked in the Home Visit Guide are appropriate, if a home visit is not possible. The questions may be asked in a written questionnaire and then discussed. Parents may also be asked to keep a diary on their adolescent's behavior in certain social, leisure and nutritional areas.

Home Visits

A home visit provides valuable data on the participant's lifestyle. Information regarding an individual's living environment, as well as leisure, nutritional and social patterns can be gathered during a home visit. Data is collected on such things as equipment within the home, family interaction pattern and socio-economic status. With this information, a plan can be developed that fits into the participant's family and neighborhood milieu. The following outline provides a guide for the home visit.

HOME VISIT GUIDE FOR PROJECT RECREATE'S
MODERATELY MENTALLY RETARDED PROGRAMS

I. Primary Concerns Relative to Socialization, Leisure and Nutrition

II. Review of Areas
   A. Learning (Past and current academic and non-academic learning experiences)
   B. Vocation (Chores s/he is responsible for)
   C. Recreation:
      1. What does the adolescent like to do by him/herself?
      2. What does the adolescent like to do with peers? (Include in this sibling activity)
      3. What does the adolescent and mother/father do together which only includes them that is fun?
      4. What does the family as a whole unit do together which is fun for the adolescent? (Obtain details about frequency)
      5. Where does the adolescent spend the most time?
      6. Where does the family interact together most frequently?
      7. What recreation equipment is available for personal and group use?

FIGURE 5. (continued next page)

FIGURE 5 continued

8. What equipment does the adolescent use the most?
9. What would the parent like to see the adolescent involved in in the future?

D. Socialization Skills:
1. How does the adolescent get along with peers, sibs, different age ranges of children and adults?
2. With whom does the adolescent most frequently spend time?
3. With whom does the adolescent seek out on his/her own to spend time?
4. What are future desires relative to dating, marriage?
5. What are concerns relative to the adolescent's sexuality?
6. What are future living plans?

E. Nutrition:
1. What and when does adolescent typically eat during a day?
2. What foods does adolescent like/dislike?
3. What eating habits might contribute to weight problem?

F. Emotional Development: Describe the adolescent emotionally. (For example, is s/he affectionate, hostile, gentle, angry, etc. Help parents use feeling words.)

G. Health: Health history and current health functioning.

III. Self Help Skills
A. Food preparation skills:
B. Dressing skills:
C. Grooming skills:
D. Money management skills:
E. Mobility:
F. Talents:

IV. Family Make-Up: Starting from the oldest person in the family who lives in the house, whether relative or non-relative, list the name, age, educational level, present employment. Take Pedigree if possible and have some fun with it.

V. Expectations for the Program: Statement of understanding about the program and what parents would like to get for themselves and for their adolescent son/daughter.

VI. Home and Neighborhood:
A. Outdoor space to recreate
B. Local parks or community facilities to recreate

VII. If time permits, administer Mundy Recreation Inventory

Direct Observation of Skills in Structured Test Situation

In the past decade behavioral observation has become an increasingly favored method for assessment of behaviors and skills, because these direct observational methods have the advantage of providing concrete and specific data. Various skills and behaviors can be assessed through careful observation of the participant's performance during recreation activities that require the skills and behaviors. The structured observation involves setting up a specific activity and having the individual participate. This approach has a number of advantages. It occurs in a comfortable non-threatening assessment environment for both the participants and program personnel. It saves staff time since it is administered to groups of participants rather than to individuals one at a time. It generally yields an accurate assessment of performance, since it is in a situation which simulates real life. Another advantage is that this approach can be used by staff from many disciplines. Minimal training is required for leaders who conduct the activities or observers who rate participants' performance.

The purpose of this approach is to assess each participant's strengths and weaknesses in cognitive, physical and social areas that are frequently required for successful participation in a variety of activities and weight control. These, in turn, are important in developing the intervention strategies for individuals in this program model. After the areas to be assessed are determined, activities are chosen or designed that demand peformance of skills or behaviors in these areas. For instance, to evaluate the functional ability to add, one might observe the participant using dice in a table game. In selecting the activity, it is vital to determine if the situation has additional demands that might interfere with performance of the behavior desired. For instance, ability to count can be assessed by having a participant move his/her playing piece on a table game; however, if the game board spirals, it also demands perceptual abilities that could interfere with demonstration of the participant's ability to count. The best example of the group activity approach to assessment is the N.Y.U. Recreation Battery Inventory (Berryman, 1976), which uses twenty activities to assess 87 behaviors in the cognitive, sensory and perceptual-motor domains that are important developmentally or for participation in leisure activities.

On the following pages, some examples of using activities in assessment are presented. The length of time necessary to administer each of the activities varies from one activity to another and is effected by the number of participants being assessed as well as by their functional level. In observing the behaviors, a rating of one is given if the participant experiences considerable difficulty in a specific area, whereas a four indicates no difficulty.

Observers can be staff, trainees, volunteers or others who are trained to use the code sheet. A one-to-one ratio of observer to participant is most desirable. Observers should place themselves where they will be least noticeable yet can see and hear behaviors of participants. If a participant approaches and seeks attention, the observer should ignore and not make eye

contact with that participant. Likewise, the observers should not alter the environment once the observation has started. It is important to use paired observers at least periodically, to check for observational reliability.

COMPONENT: Recreation

NAME OF ACTIVITY: Leisure Assessment

PURPOSE:

1. To assess ability to identify pictures and choose between three choices; to assess ability to cut and paste.
2. To assess rhythm, coordination, and ability to follow directions.

OBJECTIVES:

1. The participant will verbally identify pictures of three leisure activities presented by stating what they are and indicate preference by cutting out a happy face and pasting it on his/her favorite activity.
2. The participant will move rhythmically to disco music and freeze when told to do so by the instructor.

PROCEDURE:

1a. Present three pictures of leisure activities and ask "what is this person doing?"
b. Present happy and sad faces and ask participants to identify happy and sad. Ask "what makes you feel happy?"; "what makes you feel sad?"
c. Tell participants to cut out happy face and glue it on the picture of the activity which makes them feel the best.
2a. Present disco music and encourage participants to "dance".
b. Assist rhythm concept by clapping.
c. Yell "freeze" and have participants become statues.

TIME AGENDA: 45 Minutes

MATERIALS: Records, Record Player, Pictures of leisure activities, Scissors, Elmer's Glue

* *

COMPONENT: Recreation

NAME OF ACTIVITY: Leisure Assessment

PURPOSE:

To assess participant's leisure interests, decision making, and fine motor coordination (color).

OBJECTIVE:

Given three pictures of leisure activities, the participant will identify the content by stating what it is and where it is done and indicate preference by pointing; the participant will color within the lines the preference indicated.

(continued next page)

PROCEDURE:

1. Present pictures and ask "what is this a picture of?" "Where does a person do _____?" "What do you need to do _____?"
2. Present pictures and ask "Point to the one you like the most."
3. Present pictures and a box of crayons saying "Take a crayon and color the one you like the best." Reinforce socially.

TIME AGENDA: 25 Minutes

MATERIALS: Pictures of activities, Crayons

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: Leisure Assessment

PURPOSE:

To assess visual tracking, hand-eye coordination and directionality.

OBJECTIVE:

Given a balloon, the participant will keep it in the air by hitting it with his/her hands for five minutes.

PROCEDURE:

1. Present the balloons saying "Let's see how long you can keep this in the air."
2. Pair with partners.
3. Stomp balloons to end activity.

TIME AGENDA: 20 Minutes

MATERIALS: Balloons

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: Leisure Assessment

PURPOSE:

To assess participant's eye-hand and eye-foot coordination, space relationships, visual tracking, and interactive behaviors.

OBJECTIVES:

Within the 1/2 hour recreation period, the participant will play each of the following with the group for 10 minutes each: 1) Volleyball catch-throw or pass over the net, 2) frisbee throw and catch, and 3) kickball relay.

PROCEDURE:

1a. Leader explains and demonstrates overhead pass and return with partner over net, which has been set up previously.
b. Participants are divided into groups of four and participate in catch-throw or pass over the net.
2a. Leader explains and demonstrates playing frisbee with partner, emphasizing wrist action.
b. Participants play frisbee as a group in a circle; with partner.

(continued next page)

3a. Leader explains and demonstrates kicking a moving ball and running to opposite side of the grassy area.
b. Participants are divided into two teams and play kickball relay.

TIME AGENDA: 45 Minutes

MATERIALS: Volleyball, Volleyball Net, Frisbee, 11-Inch Playground Ball

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Nutrition

NAME OF ACTIVITY: Nutrition Assessment

PURPOSE:

To assess participants' ability to: 1) match, 2) identify foods, as well as, 3) identify foods in key food group.

OBJECTIVES:

Given bingo cards with pictures of foods rather than numbered letters, the participant will: 1) match the picture on the card held by the leader with the corresponding one on his/her card by covering it with a chit; 2) cover pictures of food called out by leader; 3) cover at least one food in the food group called out by leader.

PROCEDURE:

1. Leader hands out food bingo cards and chits.
2. Leader explains and demonstrates rules of game.
3. Participant plays food bingo when leader holds up pictures of food.
4. Participant plays food bingo when leader calls out names of food.
5. Participant plays food bingo when leader calls out names of food groups.
6. Leader stops game when first participant covers five foods in a vertical, horizontal, or diagonal line.

TIME AGENDA: 30 Minutes

MATERIALS: Food Bingo Cards, Pictures of Each Food on Cards, Chits

NOTE TO INSTRUCTOR:

1. Vary the game with black out, where all the numbers of the game must be covered before a game can be called.
2. Be careful not to cue the correct response in the assessment.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Nutrition

NAME OF ACTIVITY: Nutrition Assessment

PURPOSE:

To assess participants' ability to identify foods and the food group that they belong to.

(continued next page)

OBJECTIVE:

During the 1/2 hour nutrition period, the participant will accurately name four foods shown in pictures and will correctly place the picture of three foods named into the boxes representing the food group that they belong to.

PROCEDURE:

1. Leader explains food groups and gives examples of some foods that belong to them, e.g. milk group includes things made from milk, such as cheese.
2. Leader holds up pictures of food, e.g. apple, and asks participants what group it belongs to.
3. Leader shows group boxes that represent food groups and places picture of apple in fruit and vegetable box.
4. Leader holds up card and asks one participant to name food and place it in corresponding food group box.
5. Leader holds up another card and asks another participant to name food and place it in appropriate food box and so on until each participant has identified 4 foods and put 3 in a food group box.

TIME AGENDA: 30 Minutes

MATERIALS: Laminated pictures of several foods in each food group, 4 boxes labeled with name of food group and pictures of foods not included in the laminated pictures.

* * * * * * * * * * * * * * * * * * * *

Direct Observation in Unstructured Situation

Unstructured activities are an integral part of the program model. A social lounge situation, where recreation equipment and materials are available in the area allows for a variety of simultaneous, self-directed activities that can be used to observe various social and leisure skills and behaviors. Behaviors observed during free-time are usually well-learned and require no intervention. Therefore, baseline data on an individual's social and leisure functioning level can be coded during several consecutive free periods in a large multipurpose area. This approach has the advantage of indicating both what the individual can do and what s/he chooses and initiates doing with some frequency.

Because it offers individual assessment in a group setting, this method can be easily integrated into the program and used from baseline to post-test provided that the conditions and procedures employed are identical. In order to show that a change in the participant's behavior did or did not occur, materials, environment, peers and observers should be constant. The basic format for the social lounge follows on the next page.

COMPONENT: Recreation

NAME OF ACTIVITY: Leisure Assessment

PURPOSE: To assess ability to self initiate leisure activities.

OBJECTIVES: Given an unstructured situation in a multipurpose room with various recreation equipment and encouragement from the instructor, the participant will choose and engage in at least one leisure activity during a 20 minute period.

PROCEDURE:

1. Leader sets out various table games, crafts equipment, tools, etc. to be used.
2. Leader encourages participants to choose and engage in an activity.
3. Observers code social level, social interaction and activity including behavior, objects involved, and situation for four consecutive 5 minute periods.

TIME AGENDA: 30 Minutes

MATERIALS: Scissors, Colored Paper, Crayons, Magazines, Macrame' Cord, Parcheesi, Yahtzee, Checkers, Cards, Hammer, Screwdriver, Nails & Screws in Board, Records, Record Player, Nerf Ball, Frisbees, Mask

* * * * * * * * * * * * * * * * * * * *

Some of the considerations in setting up the social lounge are:

- Materials. Materials and recreation equipment used should be age appropriate and representative of those commonly found in school and home environments. The developmental range of the materials should include a variety of items that span the ability levels of all participants. There should be at least six different things which would provide variety and an opportunity for all levels of social interaction. For example, where a magazine would provide an opportunity for solitary activity, the presence of a rubber ball would complement that by providing the opportunty for cooperative interaction. Materials should be as durable as possible to withstand the wear and tear of student use. Lamination, taping, etc. can help.

- Environment. The location should be controlled to stabilize conditions that might effect behavior, e.g. interruptions and other distractions. The area should be clear of superfluous objects. The materials should be placed randomly around the room. An area conducive to table activities as well as one for physical activities should be arranged.

- Staffing. Observers/coders and leaders are in the social lounge. One staff member or other adult explains that this is a free period and that participants can choose to do whatever they would like to do. Limits are set for unacceptable behaviors. The subsequent role of the adult(s) is to avoid directive remarks while facilitating exploration and interaction. For lower functioning individuals, facilitation involves describing what a participant is doing, reinforcing appropriate behaviors with physical and verbal expressions of praise. The adult(s) should avoid direct participation in an activity unless involvement is requested by a participant.

- Coding. After participants have entered the social lounge, they should be introduced to the setting and materials and given at least five minutes to adjust to the environment. Observations of behaviors are recorded on the Social Interactions Code Sheet for four consecutive five minute intervals. Each five minute interval is marked by a sound made by a designated timekeeper/observer. Initially, four to six observation sessions are to be done. Three areas are covered in coding: social level, social interactions and activity involvement.

  The format for coding observations during unstructured situations follows on the next page.

NAME _____
DATE _____
TIME _____
CODER _____

* Code behaviors for four consecutive five minute periods during unstructured time.

		DESCRIBE ACTIVITY (OBJECT INVOLVED OTHER PEOPLE INVOLVED, PLACE, BEHAVIOR, ETC.)			
SOCIAL LEVEL	WATCHES OTHERS				
	NO ACTIVITY				
	PLAYS ALONE				
	PLAYS BESIDE PEERS				
	INTERACTS WITH PEERS IN PLAY				
	ENGAGES IN COOPERATIVE ACTIVITY				
	INTERACTS WITH ADULT ONLY				
SOCIAL INTERACTIONS	NO RESPONSE TO ADULT				
	NO RESPONSE TO PEER				
	RESPONDS TO ADULT				
	RESPONDS TO PEER				
	INITIATES TO ADULT				
	INITIATES TO PEER				
	CONTINUES TO INTERACT WITH ADULT				
	CONTINUES TO INTERACT WITH PEER				

FIGURE 6.
(Adapted from Play Code by Douglas Golden, Ph.D., 1979)

Code Sheet

Changes of social interaction levels occuring during any five minute period are included in the area provided for that interval. They are coded as follows:

Watches others. The participant exhibits no behavior other than as an on-looker. The participant is obviously aware of others and is observing them.

No activity. The participant demonstrates unoccupied behavior, such as staring into space, or self-stimulative activity, such as rocking. Characterized by no contact with another person or external object.

Plays alone. The participant plays alone and independently with an object that is different than those used by peers within speaking distance and does not interact. If physical manipulation is accompanied by eye contact, the behavior falls into this level.

Plays beside peers. The participant approximates the actions of one or more peers, but does not interact. If physical manipulation is accompanied by eye contact, the behavior falls into this level.

Interacts with peers in play. The participant interacts with other participants concerning an identical or similar activity. There is borrowing and loaning of equipment.

Engages in cooperative play. The participant mutually interacts with other peers in sustaining an activity. The activity can not continue without cooperation between participants, e.g. playing catch or checkers. Activities can be inter-individual, unilateral, multilateral, intragroup, or intergroup.

All social interactions during each five minute interval are recorded in the area for that interval. It identifies whether the participant interacts with adults and/or peers, initiates and/or responds to social interactions and has brief interactions or continues to interact. The area entitled "interacts with adult only" is peculiar to multihandicapped individuals who need more assistance interacting thana peer is able to provide. Such participants generally play associatively and/or constructively with adults on a one-to-one basis. This category could be considered as a social level that precedes associative interactions with peers.

Behavioral anecdotal notes are recorded during each five minute interval. The objects and other participants involved, where in the lounge behavior occurred, and specific behaviors performed are described in detail. This area supplements the information on social level and interactions and provides useful data for program development such as object preferences, peer preferences, skill level, attention span, self-initiation, or inappropriate social behaviors. Five minute intervals are necessary to identify activity intent.

For instance, it would be easy to assume that a participant who picks up a table game, such as checkers, takes it to a table, opens the box and places the board on the table next to a peer is going to play checkers cooperatively with the peer; however, during the five minute period, the participant may ignore the peer and stack the checkers in different ways alone.

The data collected from successive sessions can accurately represent the social interaction and leisure functioning level that the participant has mastered, what skills are emerging, and the variables that facilitate the emerging skills for that particular participant. The behavioral data collected through observations can be interpreted developmentally so that the sequence of training will facilitate movement to the next developmental level. The "Developmental Levels of Play Chart" located in Appendix F indicates characteristic behaviors, social interactions and materials used from birth through adolescence. The chart indicates only some activities and materials that may be typical at a particular age.

Although it may appear very specific, development is a continuous process in which changes to higher play levels happen gradually over time, rather than abruptly at particular age levels. Understanding this progression is important in programming for mentally retarded adolescents, because training in social interaction and leisure skills needs to start at the level where the individual is presently functioning. Although the end goal is interaction, it is sometimes necessary to start at non-interactive levels. An individual who only rocks, gazes into space, filters light, or does autoerotic behaviors needs to be assisted in developing an interest in objects and manipulating these objects. Then, manipulation of objects next to others, parallel (aggregate) activities, can be encouraged. When interaction skills begin to emerge, the individual will initially have difficulty relating to more than one other person at a time. Gradually, skills to interact with up to four others emerge. Studies of group process for individuals of normal intelligence have indicated that the optimum number for effective group interaction is between six and twelve. Therefore, large groups or other inappropriate social structures can actually hinder interaction social skill development, and leisure participation.

Observation for Behavior Management

In programs with mentally retarded adolescents there are always some individuals who will not cooperate or manifest disruptive behaviors such as temper tantrums, violent anger outbursts or bizarre forms of stereotyped behaviors. Many of these behaviors can be managed by behavior modification techniques such as ignoring inappropriate behaviors, providing verbal praise and physical gestures of approval for appropriate behaviors, modeling appropriate behaviors, and isolating the participant from the situation for a designated period of time. However, some participants need more specific behavior management. During the pilot programs of the model, approximately 20 percent of the mentally retarded participants needed individualized behavior prescriptions.

To establish intervention strategies several variables need to be identified, including the causes of the disruptive behavior and the chain of events that leads to the situation. With this data a plan can be developed to eliminate the cause of the behavior, interrupt the chain of events, condition an incompatible response, involve in an activity that competes with or does not allow the behavior to occur, or other means to prevent the occurrence of the inappropriate behavior.

Coding of behavioral observations during the program is perhaps the most effective way of identifying the necessary variables. One observer should be specifically assigned to the participant for this task. When it does not interfere with observing and recording, the observer may also assist in other parts of the program. An example of recording such behavior follows.

FIGURE 7

NAME: B.

DATE: 7/24/78

B'S PROBLEM BEHAVIORS AND MY PROBLEMS IN MANAGING THEM	WHERE AND WHEN THEY PREDICTABLY OCCUR	NUMBER OF TIMES PER DAY
#1. *B. tapped me on the shoulder; I looked away and blocked the taps. He repeated the behavior and repeated the intervention. Behavior stopped.* *Later, B. tapped me on the knee; I again looked away and blocked the taps. He repeated behavior. I repeated the intervention. Behavior stopped.*	1) *When B. is not receiving attention.* 2) *When B. is not actively involved in an activity, i.e. during social skills instruction, nutrition, or sometimes arts and crafts — particularly when a task is finished.*	1 1
#2. *B. threw paper cup on floor after he finished drinking water. I told him to pick it up once with no response, waited 1 minute and told him to pick it up again and he complied. I told him to hand me the cup after verbal praise for getting the cup. He put it on top of a camera. I ignored the behavior and told him to sit down. He sat down. Was verbally reinforced for sitting down.*	1) *When B. is not receiving attention.* 2) *When B. is not actively involved in an activity.*	1
#3. *B. took materials from storage box and began throwing them around during an outdoor activity. Staff told him to stop and then physically restrained him. He subsequently stopped throwing the equipment.* *B. played with sprinkler system during activity. I placed myself between the system and B., looking away. B. pushed me and said "get out of the way." I said, "It's time to play the activity." He played.*	*During semi-active times.*	1 1

FIGURE 7
(Continued)

NAME: B.

DATE: 7/26/78

B'S PROBLEM BEHAVIORS AND MY PROBLEMS IN MANAGING THEM	WHERE AND WHEN THEY PREDICTABLY OCCUR	NUMBER OF TIMES PER DAY
#1. *B. turned on sprinkler and then threw dirt. He was told it was time to play game. He joined in.*	1) *When not actively involved and before games begin.*	3
When in room 2115 waiting in line for game, B. was opening cabinets and opening table legs of folding tables. He was told it was time to play a game. He joined in.		3
#2. *When walking to play field, B. left group and walked up hill to right.*	*In transit from building to field.*	1
When walking to game room, B. took off in other directions.	*In transit.*	2
#3. *B. carried ball from second floor to O.T. apartment; then threw it out the door. He was told to go get it and he did. B. was socially reinforced for returning it to staff.*	*In transit from buidling to field.*	1
#4. *B. got up from seat and played with camera equipment. Staff stepped between camera equipment and him, looking the other way.*		2
B. pushed staff when they were between object and something he wanted to play with, i.e. sprinkler, doors, balls.		3

FIGURE 7
(continued)

NAME: B.
DATE: 8/7/78

B'S PROBLEM BEHAVIORS AND MY PROBLEMS IN MANAGING THEM	WHERE AND WHEN THEY PREDICTABLY OCCUR	NUMBER OF TIMES PER DAY
#1. *B. pulled out plug in wall. Staff asked him to put plug back in 4-5 times before he did plug it back in.*	*Occurred as leaving to go outside.*	*1*
#2. *B. purposely stepped on my foot. He removed it when I asked him to.*	*Outside, after one game had ended and before another one had started.*	*1*

NAME: B.
DATE: 8/9/78

#1. *B. refused to participate at beginning of physical activities. He hid behind trees for 10 minutes. He joined group when a ball was thrown past him and he was asked to bring it back to the group.* *He was told he could take time off if he requested it. He requested it 3 times.*	*At beginning of activity.*	*1*
#2. *B. left group and sat by sprinkler. He was told that he could sit out and playing with sprinkler was not o.k. He did not play with sprinkler.*	*Outside during physical activity.*	*1*
#3. *B. started walking away towards woods. A ball was thrown near him which he retrieved on request; then he turned to walk away again.*	*Outside during physical activity.*	*3*
#4. *B. was told beyond trees was not o.k. He walked beyond trees; he was brought back by staff. On the way he stopped to play with string.*	*Outside during physical activity.*	*1*

From the data in this recording, a behavior management program can be designed. Consultation from a psychology resident was employed to develop behavioral programs in the pilot. Due to the different staff, trainees and volunteers who participate in the program, behavior management programs are written out and made available in a designated place.

Ongoing Assessment

Several of the behavioral assessment methods presented can be ongoing for the duration of the program. Recording each participant's behavior and progress as well as intervention techniques employed is necessary to assess participants, to evaluate program effectiveness and to be accountable. Keeping progress notes is essential to ongoing program improvement. Schedules for recording participant progress may vary among agencies. In the program model, staff, trainees and volunteers meet at the end of each session to discuss and record significant events. This ensures that meaningful information is not forgotten by the end of the program. A short but thorough statement specifying behavior and the situation should be written. The following progress notes depict the records of a participant's involvement in the program:

7/10/78 *G. came to the program and greeted all adults with handshake and her name. She sat removed from the group and talked to herself and an imaginary friend. During collage activity, she tore paper instead of using scissors and did not paste. She could not name objects from pictures.*

7/12/78 *G. participated in all the structured activities. When there was a high activity level, she moved to the outside of the group. During semi-active activities she laughed and talked to herself.*

7/17/78 *G. stayed with the group and talked to herself less. She adhered to the rules once she understood them. She cut through the middle of pictures with scissors. She glued pictures on top of each other. She walked around when she needed to wait her turn in line. She ran in an uncoordinated manner with her hands behind her head or head swinging. She guarded her face and did not try to catch balls that were thrown high.*

7/19/78 *G. left the group during physical activities outside and stayed on the outside of the group most of the time. (G's summer school teacher, _____, at T. High School was called today. Teachers tell G. that she is inappropriate when she talks to herself. She is given 4 minutes to go to bathroom and she is reminded not to talk to herself. She is also reminded that she is a high school girl. She is told to participate when she "spaces out". The school is also having difficulty with her wandering off and remaining outside the group.)*

7/21/78 *(G's physical education teacher, _____, was called today. G. participated in a small P.E. class of 6 during the school year. When the activity generated a high noise, G. left the group. She reportedly performed well motorically.)*

7/24/78 *G. participated with the group the entire time. She raised her hand and correctly answered questions on appropriate and inappropriate behaviors in the social skills training period.*

7/26/78 *G. participated without talking to herself or leaving the group. She volunteered to pick equipment up.*

7/31/78 *G. participated with the group the entire time. She threw and passed ball accurately and firmly. She guarded her face when balls were thrown high. She initiated verbal interaction with B. and C. when collecting the cups. She lead the group in two songs. She had difficulty responding to questions in social skills training and nutrition education periods. She had trouble coordinating stepping forward and kicking ball, although she attended and applauded when other participants gave correct answers.*

8/2/78 *G. feigned crying, but continued to participate when her behavior was ignored. She modeled staff behavior by telling N. that his screams were inappropriate and by patting D. on the back and telling her that she was playing well. She accurately threw and passed ball but still protects herself from high throws. She said she likes the lightest weight ball. She appropriately collected cups without being asked.*

SUMMARY

Program accountability requires that program content be based upon assessment and that assessment data be frequently and systematically recorded. Assessment methods for the program model which are applicable to settings which primarily provide services on a one-to-one basis and settings which primarily provide services on a group basis have been presented.

PROGRAM IMPLEMENTATION

Once the overall goals, objectives and components of the program are established and each participant has been assessed, individualized objectives and program content can be finalized. The program model has three components, social, leisure and nutrition education, which are based on group and individual needs. This section contains an indepth examination of these components.

SOCIAL SKILLS TRAINING

Social skills evolve slowly over time in the non-disabled population. Developmentally disabled adolescents and young adults who lack these skills need systematic intervention. Often mentally retarded adolescents do not acquire social skills because of a lack of opportunity to participate in social activities. Others have deficits in this area because they lack the abstract processes to learn through observation of everyday social interactions. Therefore, concrete information is needed to help these individuals understand basic concepts related to social behaviors and interactions.

A combination of training procedures is required to develop enduring social interaction skills and appropriate social behaviors. The social skills training component of the model utilizes the interrelated techniques of behavior modification, instruction with discussion, and social practice through experiential exercises. The participant is shown numerous slides of individuals engaged in appropriate and inappropriate behaviors followed by discussion of the behavior. Social interaction skills, e.g. introducing self, are modeled. The trainee is given considerable opportunity and encouragement to rehearse or practice the desired behaviors through role playing, group exercises and specific recreation activities. Positive feedback, approval or praise is offered as the behaviors become more and more similar to those modeled and desired. Behavior to be reinforced must occur with sufficient frequency so that reinforcement can be provided. Role playing and other experiential activities provide an excellent opportunity to reinforce behavior.

Social reinforcement is emphasized in this model because such reinforcement has been shown to be particularly potent in affecting behavior change. This type of reinforcement gives informative feedback and also creates a positive feeling or affective feedback (Panda, 1971). It can be delivered without disrupting the behavior. In addition, attention, verbal praise and physical gestures of approval are natural types of reinforcers. For instance, in a real-life setting, helping a friend elicits "thanks" or approval.

Social Skills Training Component

At the initial class session, the participants learn the name of the class, what day it is, and the names of the participants in the class. Self concept is stressed by means of having the participants learn to say something positive about themselves whenever they say their name to the group. This can be something concrete, e.g. an activity that they enjoy, or something more abstract, e.g. something they like about themselves. During these activities,

the horseshoe or semi-circle formation is an excellent way to arrange furniture. It enables the leaders and other participants to be seen by all participants while creating an inclusive environment. Examples of introductory activities follow.

COMPONENT: Social

NAME OF ACTIVITY: The Name Game

OBJECTIVE: The participant will accurately name participants in the group.

PROCEDURE:

1. Leader explains and demonstrates the game.
2. Participant plays the game with others.

DIRECTIONS:

Participants are in a circle. The first person states his name, e.g. Billy Boy. The second person repeats the preceding name and states her name, e.g. Nancy Nice. The third person repeats these names and supplies his own, e.g. Billy Boy, Nancy Nice, Jim Jones. This procedure continues until each person has at least two chances to name all the participants.

TIME AGENDA: 30 Minutes

NOTES:

1. Require lower functioning participants to name person next to them and self only, at first.
2. Have the participants change places around the circle to ensure that the participant knows the name of other participants rather than their place in the circle.
3. Encourage the participant to look at the person s/he is naming.
4. Provide verbal prompts of first two letters of name, e.g. Na for Nancy, when needed.
5. When the participants can name each other easily, have each participant add something that s/he is good at or likes, e.g. basketball playing Billy, singing Nancy.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Social

NAME OF ACTIVITY: Class Applause

OBJECTIVE: The participant will appropriately encourage and support other group members in role play situations.

PROCEDURE:

1. Leader discusses and demonstrates ways to support others, e.g. clap hands, give words of encouragement, give a hug or pat on the back.
2. Participant encourages and supports other participants in role play situations.

(continued next page)

TIME AGENDA: 20 Minutes

NOTES:

1. Encourage participants to sincerely give encouragement and support.
2. Encourage participants to provide positive reinforcement in all parts of the program.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Social

NAME OF ACTIVITY: This Is My Friend

OBJECTIVE: The participant will introduce a peer and tell something about that person to the group.

PROCEDURE:

1. Leader explains and demonstrates activity.
2. Participant introduces self to partner; discovers partner's name and one activity partner likes.
3. Participant introduces partner to the group and tells one thing partner likes to do.

TIME AGENDA: 20 Minutes

NOTES:

1. Have higher functioning participants go first to provide additional modeling.
2. Provide double or verbal prompts as needed.

* * * * * * * * * * * * * * * * * * * *

Ground rules are generally developed by means of group discussion. Some of the more common ground rules are: 1) listen to whoever is speaking; 2) one person talks at a time; 3) everyone's opinion is to be respected; and 4) private and personal issues discussed in class should be kept confidential.

Basic concepts taught in the model for developing appropriate social behaviors are:

- Appropriate/Inappropriate. No behavior is considered to be "right" or "wrong", but only "appropriate" or "inappropriate", depending on the situation. Examples of behaviors considered inappropriate are not paying attention, wearing inappropriate clothing, picking nose in public, complying when approached by a stranger, hitchhiking, and being a peeping Tom.

  In order to teach the concepts of appropriate and inappropriate, classroom instruction with discussion and role playing are utilized. Slides or pictures of appropriate/inappropriate behaviors are shown and the participant identifies whether the behavior is appropriate or inappropriate in one of three ways: 1) by pointing to the picture of the appropriate or inappropriate behavior when told, "Point to the picture (slide) of the

(in)appropriate behavior"; 2) holding up a card saying appropriate (o.k.) with a smiling face or inappropriate (not o.k.) with a frowning face; or 3) verbalizing whether the pictured behavior is appropriate or inappropriate and why.

Role playing techniques, described later, are also effective for teaching these two concepts. An example of such a class follows.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Social/Sexual

NAME OF ACTIVITY: Appropriate/Inappropriate Behaviors Session

OBJECTIVE: The participant will correctly identify 10 out of 13 behaviors as being appropriate or inappropriate.

PROCEDURE:

1. Leader explains concepts of appropriate and inappropriate.
2. Leader shows slides of appropriate and inappropriate behavior to the entire class.
3. Each participant holds up a sheet of paper indicating if the behavior is appropriate or inappropriate.
4. Leader discusses why behavior is appropriate or inappropriate.
5. Participants suggest alternative appropriate behaviors.

CONCEPTS:

Appropriate = o.k., fine, ☺	Inappropriate = not o.k., ☹
Blowing nose in handkerchief.	Blowing nose on sleeve.
(Blowing nose is a private behavior and covering nose with hanky makes it private.)	
Cutting toe nails in bathroom.	Cutting toe nails on bus.
(Cutting toe nails is a private behavior and should be done in a private place.)	
Wearing work uniform at work.	Wearing work uniform to dance.
Wearing best clothes to church.	Wearing best clothes to play volleyball.

TIME AGENDA: 20 Minutes

MATERIALS: 13 slides with appropriate or inappropriate; slide projector; projection screen; sheets of paper with ☺ appropriate and ☹ inappropriate.

NOTES:

1. Reinforce participants individually and as a group.
2. Pair a co-leader or higher functioning individual with those who have trouble paying attention and responding.
3. Encourage participants to indicate appropriate and inappropriate behaviors to peers in other parts of the program.

* * * * * * * * * * * * * * * * * * * *

- Public/Private. Some behaviors are not appropriate in public, but are appropriate in private. Therefore, it is important for an individual to be able to comprehend the concepts of public and private. Public is defined as "other people present" and private is defined as "me alone with the door closed". The two primary private places are: a bathroom in one's own home (not a public restroom) or one's own bedroom where the door is closed and the person is alone in the room. Behaviors designated as private are: personal hygiene, (un)dressing, and sexual behaviors.

- Family/Friend/Helper/Stranger. A common problem with mentally retarded adolescents is their inability to make friends or even to recognize who a friend is. Many mentally retarded adolescents consider anyone who smiles or says "Hi" to be a friend. Others believe that their teachers and family members are their only friends. Therefore, teaching the concepts of family, friends, helpers, and strangers is important for establishing a basis for developing friendships. For teaching purposes, helpers are defined as "people who develop a helping or serving relationship with the individual, such as a teacher, bus driver, policeman, group home provider, or a clerk in a store". Friends are generally peers and not family members, helpers, or strangers.

  One method of teaching these concepts is to develop a picture packet for each participant composed of photographs of his/her family members, friends, helpers, and people s/he does not know. Participants should be able to correctly identify the category of each photograph in one of the following ways: 1) by pointing to an appropriate photograph when asked, "Point to a family member/friend/helper/stranger"; 2) placing a picture under the appropriate label; or 3) verbalizing who is a friend/family member/helper/stranger. An example of a class to teach these concepts follows.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Social/Sexual

NAME OF ACTIVITY: Identification of Friends and Strangers

OBJECTIVE: The participant will identify individuals who are family members or friends, helpers and strangers.

PROCEDURE:

1. Leader introduces the concept of family, friends, helpers, and strangers.
2. Participant identifies family members and trainer writes names on a blackboard.
3. Participant identifies two friends and how s/he knows these people.
4. Participant identifies two helpers, e.g. teacher, police officer.
5. Participant defines stranger.

(continued next page)

CONCEPTS:

1. Stranger is someone who you do not know or who you have never met.
2. Helper is a person who is paid to work with people or help them, e.g. teacher, police officer, doctor, nurse.

TIME AGENDA: 15 Minutes

MATERIALS: 5x8 cards with "Family," "Friend," "Helper," "Stranger"; blackboard; chalk.

* * * * * * * * * * * * * * * * * * * *

Role Playing

Many mentally retarded individuals do not initiate interaction and may interact inappropriately in social situations. Role play enables participants who have not yet developed appropriate social skills to do so by practicing behaviors under supervision in a structured situation.

In addition to the overall objectives of this component, each participant has an individual objective for role playing based on his/her assessment. An objective for a lower functioning individual might be,"In the role play situation, P. will keep her head up and look directly at the face of person while introducing him/herself three times." An objective for a higher functioning participant might be, "In a role play situation, K. will appropriately ask someone to go on a date and respond to someone asking him/her on a date three times."

Role playing is most effective when it is presented in a simple, concrete manner in the order from least to most difficult behaviors. To ensure success, role playing should begin with very simple situations in which the participant will succeed. Each situation should be repeated until it is grasped by the participant.

In the introduction to role playing, it is important to discuss what it means to pretend and to make sure everyone understands the role play situation. The leader describes the role play situation step by step and then checks with the participants to make sure they understand who they are playing and what is supposed to happen in the scene. Props or costumes are useful to make the role playing situation more real and concrete. Scenes need to be real and concrete. Concreteness is particularly important for the cognitively lower functioning individual in role play situations, such as saying "No" to a stranger.

Initially the situation should involve no more than two role players. First, the leader(s) model the situation, demonstrating an appropriate social skill, such as introducing oneself to someone not known previously. Then a participant introduces him/herself to a staff person. Any assistance necessary to ensure that the behavior is appropriate should be provided. The assistance may be in the form of:

- Physical Prompts: manually guiding the hand into a handshake or the head into a position so that eye contact is maintained.
- Specific Instructions or Verbal Prompts: verbally telling the participant what s/he should be doing as s/he does the role playing. The prompt giver should be different from the person to whom the participant is introducing him/herself.
- Doubling: standing next to the participant and speaking for him/her as a means of modeling appropriate verbal responses.
- Reinforcement: physical gestures of approval or verbal praise contingent on successful approximations of the behavior.

In order to teach an individual to have good eye contact when meeting and greeting someone, for example, the leader may have to manually guide the head into a position so that eye contact is maintained. A verbal cue, e.g. "Look him/her in the eye",and praise may also be necessary for successful approximations of the behavior. As the individual begins to maintain eye contact when shaking hands with someone, the leader gradually lessens the physical contact to just barely touching the chin and then to pointing at the eyes. This is often combined with verbal instruction or one-or-two-word cues, such as "eye contact." Reinforcement should be awarded immediately, particularly when training individuals who do not imitate readily. After the participant role plays with a leader, a more socially appropriate peer model can be utilized as the partner, with the leader supervising. Some examples of role playing situations used in the program model are:

- Introducing oneself to someone else
- Introducing two people to each other
- Introducing someone to a group of people
- Asking a friend to do something with you by telephone or in person
- Asking someone on a date by telephone or in person
- Asking someone to dance
- Complimenting someone and s/he responds by saying, "Thank you"
- Reacting appropriately when approached by a stranger on the street who says, "Would you like to come to my house?" and smiles
- Reacting appropriately when a stranger says, "Hi, my name is Bill/Sue. I'll buy you something to eat."

Representative training activities follow. They are presented in the order in which they are used. Each may be used a number of times to effect overlearning.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Social

NAME OF ACTIVITY: Role Play Introducing Self

OBJECTIVE: The participant will introduce him/herself to peer using eye contact, appropriate verbalization and handshake.

PROCEDURE:

1. Leader introduces discussion on choosing the right time and place to introduce self as well as ways of introducing self.
2. Leader models greeting the other person and naming self while shaking hands (if appropriate).
3. Leader and participant role play appropriate behavior.
4. Participant practices behavior with a peer under supervision.
5. Participant practices behavior with peers independently.

ROLE PLAY SITUATIONS:

1. Neighborhood — Introducing self to a new neighbor.
2. Classroom — Introducing self to a new group member.

TIME AGENDA: 30 Minutes

NOTES:

1. Use physical or verbal prompts, as necessary, to keep participant looking at other person. Prompt giver should be different than person to whom the participant is introducing him/herself.
2. For those with very limited verbal skills, initially use double who stands next to the participant and speaks for him/her.
3. Reinforce appropriate introducing behaviors with physical gestures of approval and verbal praise.
4. Have participants practice this behavior with guests who come to the program.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Social

NAME OF ACTIVITY: Role Play Asking A Peer To Do Something

OBJECTIVE: The participant will ask a peer to do something with him/her in a role play situation using eye contact and appropriate verbalization.

PROCEDURE:

1. Leader introduces discussion on when and how to ask someone to do something.
2. Leader models asking someone to do something with him/her.
3. Leader and participant role play appropriate behavior.
4. Participant practices behavior with one peer under supervision.
5. Participant practices behavior with peers independently.

ROLE PLAY SITUATIONS:

1. Neighborhood — Asking someone to go to the movies.
2. Classroom — Asking someone to play Parcheesi in the social lounge.

(continued next page)

TIME AGENDA: 30 Minutes

NOTES:

1. Use physical assistance, verbal prompts and doubling if the participant does not respond.
2. Reinforce behavior with physical gestures of approval and verbal praise.
3. Use language appropriate to the particular interpersonal situation.
4. Encourage participants to use this approach in the social lounge.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Social/Sexual

NAME OF ACTIVITY: Role Play Dealing with an Approach by a Stranger

OBJECTIVE: The participant will appropriately deal with an unwanted approach by a stranger in a role play situation.

PROCEDURE:

1. Leader introduces discussion on how to deal with unwanted approaches.
2. Leader models dealing with an unwanted approach with a "stranger."
3. Participant role plays ways to deal with a stranger under supervision.
4. Participant deals with a stranger in a non-structured part of the program, e.g. a real stranger comes in at social lounge time and invites participant to go to movies.

ROLE PLAY SITUATIONS:

1. Home — Dealing with a stranger who asks to come in.
2. Neighborhood — Dealing with a stranger who offers a ride in a car.

TIME AGENDA: 15 Minutes

MATERIALS: Costume for stranger; Props.

NOTES:

1. Use a real stranger whenever possible. Many lower functioning people have difficulty with the concept of stranger. This is even more confusing when the person playing stranger is a teacher or friend.
2. Use a double to assist with non-verbal and verbal responses.
3. Establish a stringent success criterion for this behavior. Many individuals have been trained to always do what someone else tells them and will have trouble refusing. Others are so pleased to be asked to do something that they will always want to say yes.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Social/Sexual

NAME OF ACTIVITY: Dating Role Play

OBJECTIVE: The participant will appropriately role play: 1) asking for a date and 2) responding to an invitation for a date.

PROCEDURE:

1. Leader asks participants to define a date and names activities that would be fun to do on a date.
2. Leader explains and models making a date while co-leader models accepting or rejecting a date.
3. Participant alternatively role plays making a date and accepting or rejecting a date.

TIME AGENDA: 30 Minutes

NOTES:

1. Provide content guidelines for making a date, e.g. stating name, saying where and when the date would be.
2. Encourage parents or other primary care providers to invite a friend of the opposite sex along on outings.
3. Provide activities that require interaction between males and females, e.g. dancing.

* * * * * * * * * * * * * * * * * * * *

One of the biggest problems with social skills development programs is that behaviors that are developed and reinforced in one setting may not generalize or be reinforced in the individual's other settings (Walker, 1980). The social interaction skills developed in the model will occur and be lasting only if reward, approval, or reinforcement for enacting the role play behaviors are provided.

To generalize the new skills to a real-life environment, it is helpful to have parents, primary care providers, teachers, or others who live or work with the participant model and reinforce the desired behavior, as well as use the term "appropriate" when the participant exhibits the new behavior.

All participants have individualized leisure skill objectives as well as social interaction skills objectives, which dictate leisure activity involvement. Recreation activities are, therefore, structured to facilitate sharing equipment, taking turns, playing cooperatively, socializing at appropriate times, and initiating interaction and leisure activities with others. In addition, more social interaction is sometimes superimposed upon the structure of an activity without interfering with the leisure education objectives. The same activity is often used to facilitate interaction at several levels. For instance, aerobic dance is solitary when one "does their own thing;" parallel in nature when following the leader; cooperative when dancing with a partner; and competitive when participating in a dance contest. Similarly, making a collage, a solitary or parallel activity, is utilized as a cooperative small group project.

Interaction is encouraged during lead-up volleyball skills by working in pairs and small groups and requiring verbal interaction, e.g. name a person and say something about him/her, before doing a dig pass. The following chart illustrates how activities can be used in this manner.

ACTIVITY

SOCIAL INTERACTION PATTERN	Table Games: Cards	Crafts: Collage	Entertainment: Reading	Music: Singing	Cooking: Baking	Animal Care: Dog Care	Collections: Post Cards	Sports: Swimming	Sports: Volleyball
INTRA-INDIVIDUAL				Singing in Shower				Swimming Alone	
EXTRA-INDIVIDUAL	Solitaires	Individual Collage	Reading Novel Alone	Playing Kazoo	Baking Alone	Walking Dog	Collecting Post Cards	Swimming after Fish	Practicing Serve Alone
AGGREGATE	Class in Solitaires	Individual Collage in Group	Reading at Library	Informal Chanting	Baking Class	Dog Obedience Class	Social Lounge	Swimming in crowded Pool	Overhead Pass against wall in Group Setting
INTER-INDIVIDUAL	Honeymoon Bridge	Comparing One Collage to Another		Couple Competing with each Other	Duel Bake Off	Obedience Trial Duel	Collection Rivalry with One Friend	Underwater Swim against Friend	One on One Volleyball
UNILATERAL	Black Jack	Demonstration Collage Compared to each Participant		Efforts to Get Present Soloist Part	Prize Pie Judged Against Others	Last Year's Champion against Others		Shark, Water Tag	Leader Takes on each Player
MULTILATERAL	War, Rummy	Individual Collage	Poetry Reading Contest	Voice Contest	Bake Off	Dog Obedience Trials, Dog Show	Post Card Show	Marco Polo, Swim Meet	Hot Potato Overhead Pass
INTRA-GROUP	Double Solitaire Double Golf	Group Collage	Book Club, Study Group	Choirs, Glee Club	Bake Sale, Cooking Club	Dog Club	Post Card Interest Group	Synchronized Swim Team	Infinity Volleyball
INTER-GROUP	Whist, Bridge	Group Collage Contest	# Books Read by One Club vs. # Read by Other	Barbershop Quartet Competition	Competition between Clubs	Competition between Clubs	Club's Best Post Cards vs. Another Clubs'	Synchronized Swim Meet	Volleyball Game

FIGURE 8. Sample Social Interaction Progression for Program Development

The unstructured lounge period also provides an opportunity for participants to master the interaction level where they are functioning. In addition, structured games that were chosen or adapted specifically to complement the social skills training component are used. Some examples of recreation activities which are used to facilitate the development of social interaction skills follow.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: Socialization

OBJECTIVE: The participant will socialize at appropriate times with group members.

PROCEDURE:

1. Leader shows participants pictures from magazines and books that show people in social situations, e.g. talking, laughing, dancing, eating.
2. Leader leads discussion about what people are doing, where they are doing it, who they are doing it with, etc.
3. Leader leads discussion on appropriate times, e.g. social lounge period, and ways to socialize during the program.
4. Participant socially interacts with group members during social lounge.

TIME AGENDA: 20 Minutes, ongoing

NOTES:

1. Encourage participants to visit with peers during social lounge.
2. Encourage parents and other primary care providers to include the participant in a variety of social situations, e.g. picnics, going to movies, attending family parties.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: Dance A Name

OBJECTIVE: The participant will name each participant and imitate movement during "Dance A Name".

PROCEDURE:

1. Leader explains and demonstrates activity.
2. Participant practices chant as part of group.
3. Participant does the activity as part of group.

DIRECTIONS: The group stands in a circle formation. Participants clap and chant "Name, name, what's your name?" First participant says his/her name and does a movement with it, e.g. touch toes. Participants say the person's name while imitating the movement together three times. Continue until everyone in the circle has said his/her name with a movement.

(continued next page)

TIME AGENDA: 15 Minutes

NOTES:

1. Position co-trainer(s) and/or helper(s) next to individuals who have low attention spans to prompt imitation.
2. Use reinforcement, if needed. Generally, this activity is reinforcing enough by itself.
3. Provide verbal reminders for those who forget to do a movement with his/her name.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: Name Catch

OBJECTIVE: The participant will call out the name of the person to whom s/he is going to throw the ball before the ball is thrown.

PROCEDURE:

1. Leader explains and demonstrates activity in a circle formation.
2. Participant gets the attention of the person to whom the ball will be thrown by calling out his/her name and then throws the ball.

TIME AGENDA: 15 Minutes

MATERIALS: Ball

NOTES:

1. Add saying something the person likes or is good at with his/her name after participants are good at naming people.
2. Liven up the activity by having the participants go as fast as they can.
3. Encourage participants to throw ball to a variety of participants and not just leader(s).

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: Get Acquainted Musical Chairs

OBJECTIVE: The participant will accurately name seated players as they are passed.

PROCEDURE:

1. Leader explains and demonstrates activity.
2. Participant actively participates in activity.

DIRECTIONS: Chairs are arranged in a circle. Four participants are introduced to the group. Their four chairs are taken from the circle. Everyone else rises and the four without chairs find seats and sit down. As the music plays, the other players march around the circle. As they pass each one of the seated four, they must call him/her by name. Anyone who forgets to speak to a seated player

(continued next page)

DIRECTIONS: (continued)
must sit down, too. When the music stops, everyone quickly finds a chair and sits down. The four left without chairs introduce themselves. The number marching keeps getting smaller, as everyone caught must remain seated. The marchers speak to each of those seated by saying, "Hello, _____."

MATERIALS: Record player, Record, Chairs.

TIME AGENDA: 20 Minutes

NOTES:
1. Introduce and seat higher functioning participants who do not need practice in naming participants.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: Togeth-Air Ball (Collective Score Volleyball)

OBJECTIVE: The participant will work as a member of a group to keep a ball in the air.

PROCEDURE:
1. Leader explains and demonstrates game with co-trainer(s) and/or peer model(s).
2. Participant cooperatively plays the game.

DIRECTIONS: Two teams are on either side of a line, rope, or net, and a ball is batted back and forth in a continuous fashion. If a score is kept, it is a collective score. The goal is to see how long the ball can be kept in the air.

TIME AGENDA: 30 Minutes

MATERIALS: Ball, beachball, or balloon; line, sting, or net.

NOTES:
1. Use a balloon or beachball before going on to something more difficult, like a volleyball.
2. Initially, count one point anytime anyone hits the ball to provide greatest reinforcement.
3. Lower or raise the string/net according to skill level of participants.
4. Change rules for variety, e.g. players must use part of body other than hand to get ball over net.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: Conversation Circle

OBJECTIVE: The participant will appropriately introduce self in a game situation on command.

PROCEDURE:

1. Leader introduces rules of game in a simplified manner.
2. Leader models desired game behavior with co-trainer(s) and/or peer models.
3. Participant actively participates in Conversation Circle.

DIRECTIONS: Two circles facing each other. Gentlemen are on the inside facing out. Ladies are on the outside facing in. Both circles move to their right, in time with the music. When you stop the music, those facing each other shake hands and introduce themselves and talk about a topic assigned by you until the music starts again. Anyone without a partner moves to the center of the circle to find one. The game continues until each player has met ten to twelve people. You should be prepared with a list of topics pertaining to the theme or of interest to the group.

TIME AGENDA: 20 Minutes

NOTES:

1. Demonstrate rather than explain as much as possible.
2. Provide physical and verbal cues or prompts for participants as needed.
3. Begin with introducing self, then progress to learning other person's name.
4. For lower functioning participants, progress over time to concrete conversation starter, e.g. "Tell your friend something that you like to do."
5. Have high staff-participant ratio for the lower functioning participants.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: Group Collage

PURPOSE: To encourage participation in cooperative leisure activities.

OBJECTIVE: In the crafts area, the participant will actively participate in a cooperative manner in the completion of a group collage.

PROCEDURE:

1. Leader shows a completed collage and demonstrates how to make one.
2. Leader assigns the participant to a group of three or four peers.
3. Participant completes the collage working as a member of the group.

(continued next page)

TIME AGENDA: 20-30 Minutes

MATERIALS: Magazines; blunt scissors; glue; construction paper.

NOTES:

1. Increase the amount of sharing needed by having fewer pairs of scissors and bottles of glue than there are participants.
2. Reinforce the concept of completing something together as a team by having each member of the group wear the same color tee shirt or the same badge. Each group could choose a name.

* * * * * * * * * * * * * * * * * * *

LEISURE EDUCATION

In recent years there has been a major thrust toward normalization of mentally retarded adolescents to enable them to function within the mainstream of society. For the mentally retarded adolescent, recreation can provide a means for gaining social, emotional and personal acceptance, as well as a means for community participation, integration and normalization. Recreation provides a safe environment in which social interaction and the ability to get along appropriately with other people can be fostered and practiced. Participation in physical recreation is an important component in weight control and other aspects of physical health. However, participation in other leisure activities is additionally important in weight control because time spent in activity is time not spent eating. For mentally retarded individuals who are educated for leisure, leisure provides stimulation and purposeful activity needed to maintain an active interest in one's surroundings, in one's health, in social relationships in school and at home; such interest, in turn, supports other maintenance, health and habilitative services. Too frequently adolescents who do not fit into the existing niches during the transition to adulthood fall through the cracks. Mentally retarded individuals who lack leisure education may spend the majority of their free time gazing into space, engaged in self-stimulating activities, wandering aimlessly, or engaged in behavior that jeopardizes their safety and community placement.

To participate meaningfully in leisure, the mentally retarded individual needs an awareness of leisure, leisure skills, social interaction skills, decision-making skills, and knowledge of personal and community resources. This model emphasized that developing leisure skills is not enough. For instance, jogging may appear to be a fairly straight forward activity; however, the current proliferation of literature on jogging emphasizes the importance of deciding where to participate, choosing the correct shoe for the type of surface run on, choosing the correct attire for the weather, deciding on the frequency and time or distance to be covered, as well as using an appropriate stride or jogging style. An individual may perform well in a variety of leisure skills but be unable to pursue these activities due to a lack of competence in the other areas. This is often related to a history of participation in activities structured in a manner such that the participants have no choice, responsibility or decision-making. The program model's approach to

leisure education within the confines of an eight to twelve week program is presented in this section.

Selection of Activities

For the most part, the mentally retarded can participate in any activity in which the non-retarded participate. Physical activities, social activities, craft activities, and table games are emphasized in this model. Specific activities must be chosen based on the assessment of individuals in the group. For instance, an individual who enjoys dancing and needs to develop eye-hand coordination might be involved in ball handling in a rhythmic manner to music. Other considerations in the selection of activities and recreation programming include:

- Age and Cultural Appropriateness. Mentally retarded adolescents need to be taught recreation skills in which their non-retarded peers engage. This includes an examination of the availability of the activity in the community and the economic feasibility of continued participation. Ceramics may be an age appropriate activity, but is not a good selection unless it is available in the community at a price the participant can afford. Selection based on this criteria will facilitate both normalization and integration.

- Expressed or Demonstrated Interest. Problems of motivating participation are minimized by this approach. In addition, activities of interest are most likely to continue and transfer into the community.

- Compatibility with Participant's Cognitive, Physical and Social Functioning Level. In choosing activities, it is important to analyze what an activity demands from participants. For example, frequently mentally retarded individuals have the social and physical skills to play checkers, but lack the decision-making, planning ahead and abstract thought necessary for strategy. Although this does not prevent them from learning the actual game, it interferes with the ability to play non-retarded peers on a competitive basis. Most mentally retarded individuals would be better able to play a game of chance, e.g. Parcheesi, than a strategy game.

- Simplicity. Games which require little memorization of playing rules or strategy are most appropriate. Physical activities must be kept relatively simple, since mentally retarded individuals often have problems with body image, balance, agility, catching and throwing.

Teaching Methods

The program model uses a combination of teaching methods to facilitate leisure education in the four areas. Mentally retarded individuals vary in their learning style. One strategy or combination of strategies may be more important for the learning of a particular participant than others. Therefore, appropriate teaching methods need to be chosen for the individual. The following teaching strategies are valuable in leisure education for the mentally retarded.

- Routine. Mentally retarded individuals function best in situations where they know what will happen and what is expected of them. Establishing a similar schedule for each session is important. Simple rules, such as boundaries, also provide needed structure.

- Playful Atmosphere. Although difficult to represent in writing instructional strategies, a vital aspect of the intervention is that it is positive, contagious and has life; thus, it emphasizes enjoyment and success which, in turn, increases the likelihood that the behavior will be repeated.

- Frequent Change in Activities. Mentally retarded adolescents generally have a short attention span and need variety to keep involved. Therefore, the program is designed for two or more activities each hour.

- Repetition. Mentally retarded individuals learn slower than the non-retarded. Therefore, repetition and review is important. It takes considerable repetition before a skill is so well learned that it is routine and likely to transfer to real-life settings.

- Developmental Progression. Play development is a process that follows a specific progression much as speech development has a developmental sequence. The Developmental Levels of Play Chart found in Appendix F indicates characteristic behaviors, social interactions and materials used from birth through adolescence. The chart only indicates some activities and materials that may be typical at a particular age. The chart can be used as a resource in programming progressive instruction in leisure skills. Careful attention should be paid to the age appropriateness of activities chosen.

- Task Analysis. Learning complex tasks is facilitated by teaching the individual tasks or skills required and combining them through a chaining process.

- Kinesthetic Teaching. Some lower functioning mentally retarded individuals need to be physically guided through the movement or skill before they can perform it.

- Demonstrations. Mentally retarded adolescents have a limited ability to cope with abstract concepts and to understand verbal instructions. Providing a good model makes the task more concrete and allows the participants to learn by imitation.

- Prompts and Cues. Verbal and physical prompts and cues are effective in initiating a response.

- Guided Discovery. Mentally retarded individuals can be lead to discover leisure concepts through the use of questions designed to elicit that response. This technique requires the use of cognitive skills to a greater degree than other methods.

- Behavior Modification. Because the stimulation of the activity may not be adequate reinforcement for the lower functioning mentally retarded individual, positive reinforcement techniques such as physical gestures of approval and verbal praise by staff and peers, as well as tangible rewards such as stars on a chart may be needed to maintain participation. However, the frequency and immediacy of reinforcement should be decreased over time to facilitate the development of an intrinsic framework of values. Frequent success can foster the development of motivation.

It may be difficult, at times, to apply these strategies to leisure skill development. An example of a systems approach to leisure skill development is presented here to illustrate the combined use of these methods.

Topic Area: Teaching painting to moderately mentally retarded individuals.

OBJECTIVE: Given painting materials and a moderately mentally retarded individual who does not know how to paint, the recreation specialist will instruct the individual in the basics of painting by using chaining process, verbal requests, physical assistance, and demonstration. By the end of the session the individual will paint on the paper without spilling any paint on the verbal command, "Paint".

ENTRY BEHAVIOR:

1. The instructor knows the basics of chaining process.
2. The instructor can do actions called for in flow diagram, i.e., "restrain gently," "guide child's hand," "reinforce child".
3. The instructor has the basic skills of painting.

MENTALLY RETARDED INDIVIDUAL:

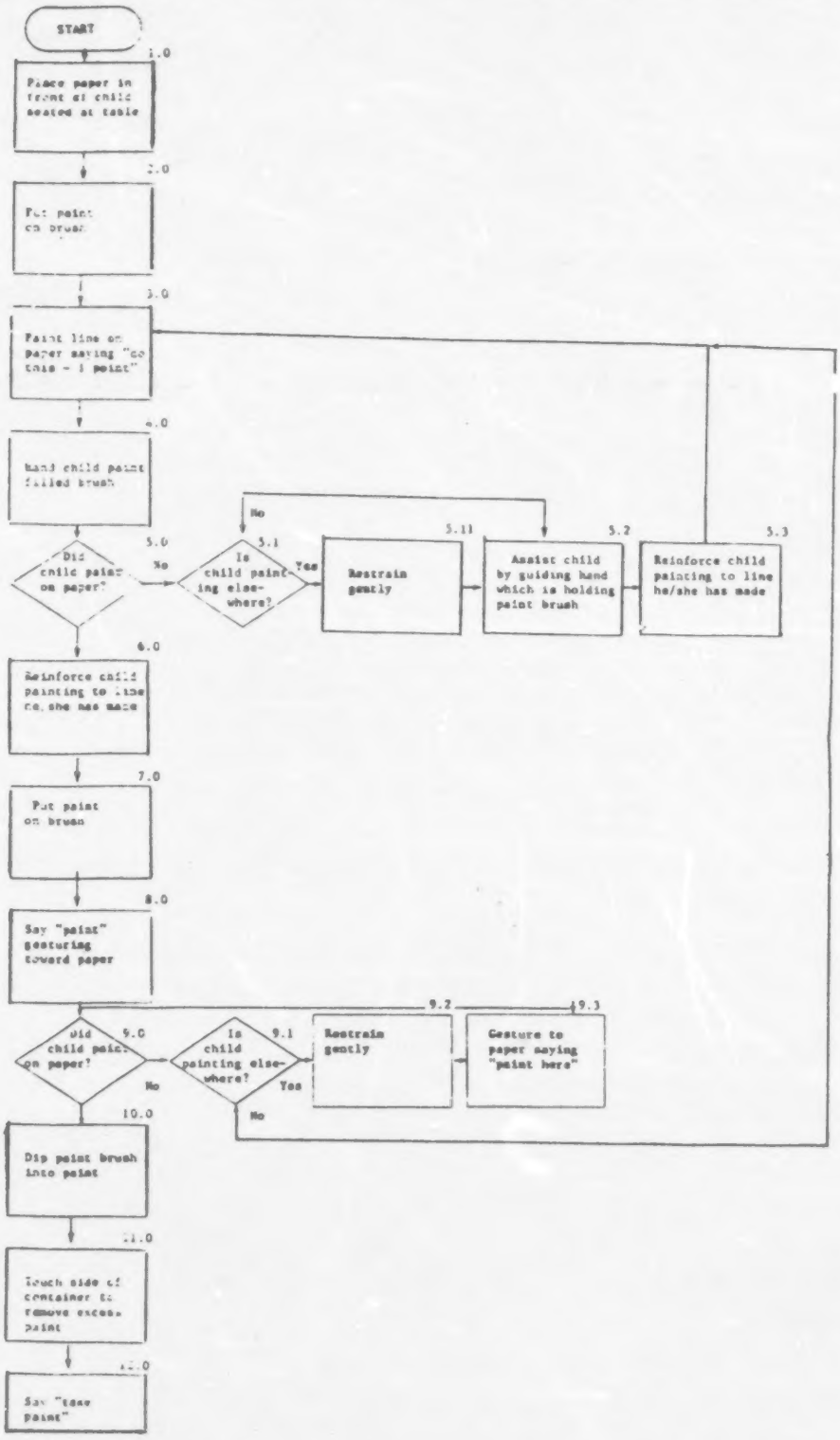
1. The learner can identify by touching the following objects: brush, paint, paper, water.
2. The learner can imitate behavior.
3. The learner can demonstrate knowledge of words, i.e., "take", "more", "another", "color", and "wash".
4. The learner can hold a paintbrush.

CONCEPTS:

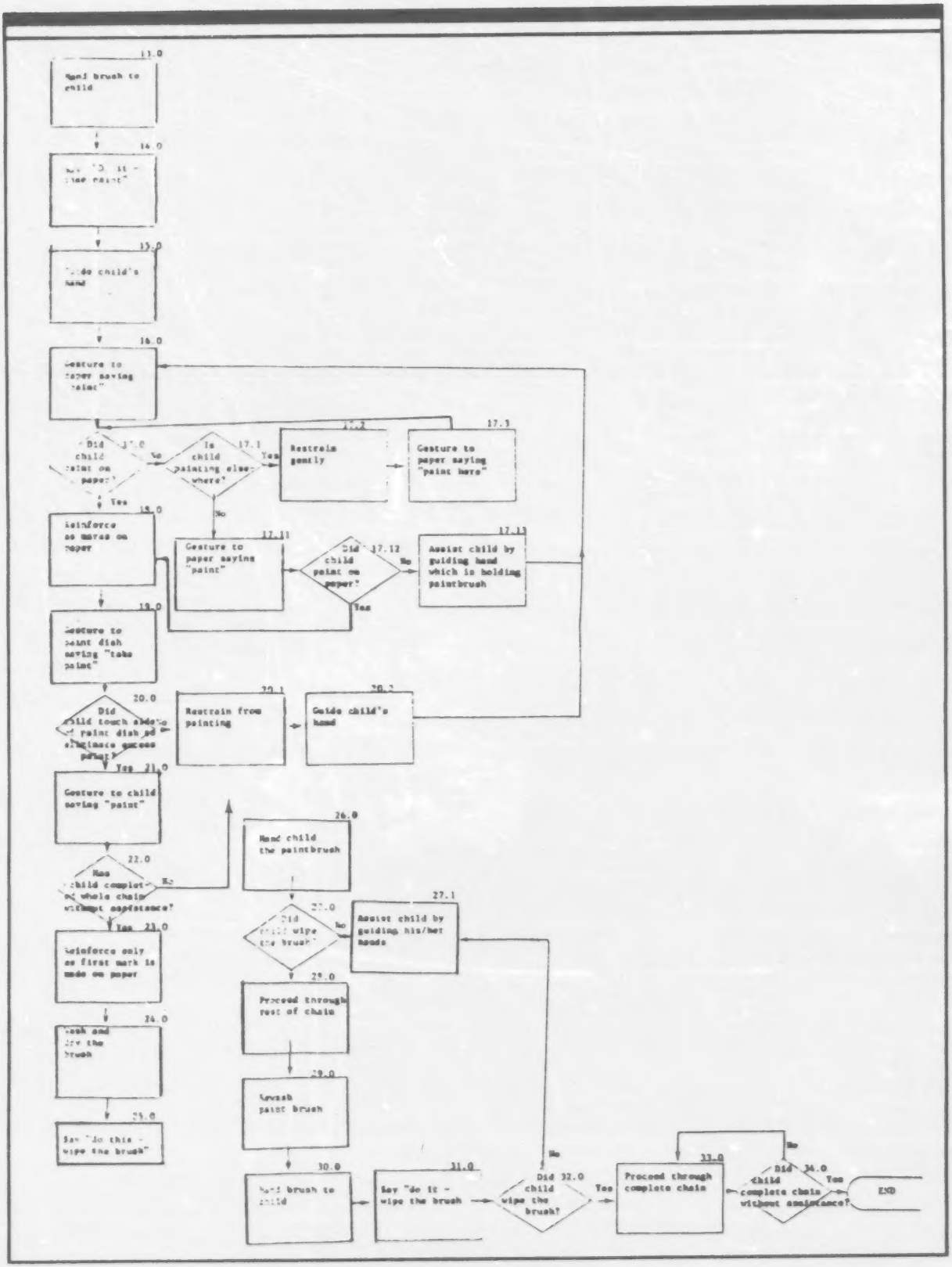
Chain
Paintbrush
Paper
Paint
Water
Take
More
Another
Color
Wipe
Wash
Restrain
Reinforce

RULES: Side of paint can must be touched with brush to remove excess paint. The paintbrush should be wiped after washing. The learner should be physically assisted when s/he does not respond. The child should be reinforced for initial correct response.

FIGURE 9. Painting: A Systems Approach to Skill Development


START
1.0
Place paper in front of child seated at table
2.0
Put paint on brush
3.0
Paint line on paper saying "do this - 1 paint"
4.0
Hand child paint filled brush
5.0
Did child paint on paper?
No
5.1
Is child painting elsewhere?
Yes
No
5.11
Restrain gently
5.2
Assist child by guiding hand which is holding paint brush
5.3
Reinforce child painting to line he/she has made
6.0
Reinforce child painting to line he/she has made
7.0
Put paint on brush
8.0
Say "paint" gesturing toward paper
9.0
Did child paint on paper?
No
9.1
Is child painting elsewhere?
Yes
No
9.2
Restrain gently
9.3
Gesture to paper saying "paint here"
10.0
Dip paint brush into paint
11.0
Touch side of container to remove excess paint
12.0
Say "take paint"

8.1


11.0
Hand brush to child
14.0
Say "Do it - paint"
15.0
Guide child's hand
16.0
Gesture to paper saying "paint"
17.0
Did child paint on paper?
No
17.1
Is child painting elsewhere?
Yes
17.2
Restrain gently
17.3
Gesture to paper saying "paint here"
No
Yes
18.0
Reinforce as paint on paper
17.11
Gesture to paper saying "paint"
17.12
Did child paint on paper?
No
17.13
Assist child by guiding hand which is holding paintbrush
Yes
19.0
Gesture to paint dish saying "take paint"
20.0
Did child touch side of paint dish or distance across paper?
No
20.1
Restrain from painting
20.2
Guide child's hand
Yes
21.0
Gesture to child saying "paint"
22.0
Has child completed whole chain without assistance?
No
Yes
23.0
Reinforce only as first mark is made on paper
24.0
Wash and dry the brush
25.0
Say "Do this - wipe the brush"
26.0
Hand child the paintbrush
27.0
Did child wipe the brush?
No
27.1
Assist child by guiding his/her hands
28.0
Proceed through rest of chain
29.0
Rewash paint brush
30.0
Hand brush to child
31.0
Say "do it - wipe the brush
32.0
Did child wipe the brush?
No
Yes
33.0
Proceed through complete chain
34.0
Did child complete chain without assistance?
No
Yes
END

Leisure Awareness and Resources

Developing awareness of leisure and knowledge of leisure resources is vital to the individual's preparation to exercise independence in successfully choosing and enjoying leisure activities. The mentally retarded individual needs to be familiar with a variety of resources, opportunities and alternatives for leisure involvement. The educational approach used in the program model includes participation in activities and group discussion before, during or after the activity. The activities may have leisure content inserted into them, such as doing a collage of preferred activities, or may expose the participant to leisure options through participation, e.g. playing frisbee. Discussion is necessary to assist the development of concepts relative to leisure involvement. The leader stimulates the development of concepts by initiating a topic and eliciting responses through guided discovery. The values of leisure for socializing, weight control and health as well as personal enjoyment are stressed in the discussions. Most of the leisure content discussion is infused into the other recreation areas. Selected examples of specific leisure awareness and resource activities follow.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: Leisure Collage

PURPOSE: To identify major leisure interests and expand awareness of options.

OBJECTIVE: During crafts, the participant will cut with scissors at least three pictures of preferred leisure activities from a magazine and will paste them onto a piece of construction paper. The participant will name the activities on his/her collage and state what s/he likes about the activity.

PROCEDURE:

1. Leader introduces activity by showing completed collage and then demonstrating steps.
2. Participant selects magazine, scissors and other materials.
3. Participant cuts out selected pictures of activities and makes collage.
4. Leader questions participants on activity preferences, e.g. "What is that?"; "How is it fun?"

TIME AGENDA: 30-45 Minutes

MATERIALS: Sport, craft, theater, outdoor and housekeeping magazines; scissors with blunt points; glue; construction paper.

NOTES:

1. In the explanation, use simple phrases such as "pictures of things you like to do" rather than "your leisure preferences."

(continued next page)

NOTES: (continued)

2. Allow participants to get and return their own materials or help to pass things out as much as possible.
3. Point out when another participant has indicated the same activity. Encourage them to do it together.
4. Whenever feasible, expand into a discussion by asking questions, such as "Who else likes to _____? How is it fun? Where do you do it?", etc.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: Feelin' Good

PURPOSE: To identify what activities contribute to feeling good.

OBJECTIVES: The participant will verbally identify pictures of three leisure activities presented by stating what they are and indicate preference by cutting out a happy face and pasting it on his/her favorite activity.

PROCEDURE:

1. Leader presents three pictures of leisure activities and asks "What is this person doing?"
2. Leader presents happy faces and asks participants to explain happy and sad. Asks "What makes you feel happy?"
3. Leader tells participants to cut out happy face and glue it on the picture of the activity which makes them feel the best.
4. Participant names activity and states how it makes him/her feel.

TIME AGENDA: 30 Minutes

MATERIALS: Pictures of leisure activities; scissors; glue.

NOTES:

1. Generate a list of other activities which make the participants feel good.
2. Point out that sometimes different activities make someone happy.
3. Use activity to discuss other things about the activity, e.g. where it is done, who it can be done with, etc.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: What's Happenin', Baby

PURPOSE: To develop an awareness of leisure resources and how to find them.

OBJECTIVE: During the recreation component, the participant will name a minimum of two family and two community leisure resources and state how s/he knows about them.

(continued next page)

PROCEDURE:

1. Leader explains that there are many things to do at home; in the community.

2a. On request, participant names place s/he does two activities in the community.

b. On request, participant names equipment or materials used to do two activities at home.

3. Participant states how s/he found out about the activity.

4. Leader later makes and gives participants the list of happenings to take home.

TIME AGENDA: 20-30 Minutes

MATERIALS: Magic marker; newsprint.

NOTES:

1. Use leisure collages or similar visual aid to help the participants think of activities.
2. Discuss ways that resources can be found if a person wants to do an activity and does not know where to go.
3. Make the list into a calendar by asking when the activity is done.
4. Leave the list posted as a reminder.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: What, When, Where

PURPOSE: To develop an awareness of the information needed to go to an activity.

OBJECTIVE: During the recreation component, the participant will role play a telephone conversation in which s/he asks the what, when and where of an activity.

PROCEDURE:

1. Leader brainstorms with participants what must be known before participating in an activity, such as bowling.
2. Leader introduces role play of telephone conversation to get the needed information.
3. Leader demonstrates role play situation.
4. Participant role plays a telephone conversation seeking the necessary information with a leader.

TIME AGENDA: 30 Minutes

MATERIALS: Non-functional telephones.

ROLE PLAY SITUATIONS:

Commercial recreation: bowling
Youth organization: YMCA
Community recreation agency: Social outing

(continued next page)

NOTES:

1. Emphasize information, such as what will happen, what day and time it will take place, how much it will cost, what special clothes and/or equipment is needed, and where it is located and/or how to get there, as appropriate.
2. Emphasize why the information is needed and the consequences of not having the information, e.g. missing part of a movie when one comes late.
3. Provide doubling or other assistance, as needed.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: What's Next

PURPOSE: To introduce a variety of leisure activities appropriate for the neighborhood.

OBJECTIVE: The participant will participate in several leisure activities and describe how they could be done in his/her neighborhood.

PROCEDURE:

1. Leader holds up several pieces of recreation equipment individually and asks what they are, what is done with them, where you use them, etc.
2. Leader asks individual participants to demonstrate use of equipment.
3. Leader breaks participants into groups and has them rotate through activity stations.
4. Group discusses what they thought of the activities.

TIME AGENDA: 45-60 Minutes

MATERIALS: Frisbees; volleyball; volleyball net; 11-inch playground ball; basketball; basketball hoop; etc.

NOTES:

1. Emphasize components such as how much equipment costs, where it can be purchased, etc. with higher functioning individuals.
2. Do not make the stations highly structured or instructional. Allow some trial and error.

* * * * * * * * * * * * * * * * * * * *

Leisure Skill Development

Mentally retarded individuals are usually delayed in all areas of development. The skills that are necessary for participation and success in play and recreation come relatively easily to the normal individual but, for the mentally retarded individual, it takes more work and concentration. Some of the areas in which most mentally retarded individuals are slow to develop, which in turn cause problems in their ability to recreate, include: attention span, body awareness, coordination, balance, direction and space. Remediation

in these areas is important to enable participation in a variety of leisure activities. Without specific intervention these skills may not develop. Because of the nature of recreation, skills can be taught through enjoyable participation.

Individual Program Plan

Each individual has different problems acquiring certain skills. Therefore, it is important to establish an individual program plan for each participant within the group based upon pre-assessment, interviews and historical data. The plan includes measurable objectives, instructional strategies and materials to be used with each individual. Other agencies involved in training the participant, e.g. school, should be contacted when establishing this plan to avoid duplication of services and to promote consistency in training.

Facilitating individual plans within a group context is not necessarily complex. An example of how this process is used is the aerobic dance component. Two overall goals of the program are to increase physical activity skills and to better understand weight control. A subgoal related to each of these is to increase physical fitness. All participants expressed interest in music and/or dance in the pre-program assessment. Aerobic dance was chosen because it could be used to facilitate program goals while being of interest to participants. Within this activity, each participant had an individual goal. For instance, one participant engaged primarily in repetitive, rhythmic activities, e.g. rocking or pumping. His objective was: "will demonstrate an expanded movement repertoire by performing at least three aerobic movement patterns to music upon request during the last day of the program." Another participant had difficulty with eye-hand coordination and rhythm. Her objective was: "will hit a swinging 9-inch ball suspended 54 inches above the ground on the fourth beat of each measure 5 out of 7 trials." For a participant who had difficulty with attention span and following directions, the objective was: "will imitate three out of four rhythmic movement patterns done to music by staff for a five minute period." Within the group, there were several participants who had no remedial needs, but needed to increase physical fitness and to learn dance steps appropriate for community dances. For these individuals, the objective was: "will perform a 15 minute aerobic dance routine without stopping or losing breath during the class."

Physical Recreation Skill Development

Because of the short duration of the program, the model provides limited skill development in table games, crafts, and physical recreation. Because physical recreation interacts most directly with weight control, the primary focus is in this area. Participants are exposed to a number of physical activities, e.g. basketball, kickball and frisbee catch. However, three activities are emphasized: volleyball, walking, and aerobic dancing. The emphasis within each program varies among these activities depending upon the needs and interests of participants.

- Volleyball. Volleyball is an activity that can be carried over into other community settings. Many community recreation agencies, community schools, community centers, Y's, and church groups offer volleyball. Also, it is frequently played on an informal basis in parks and back yards through adolescence and adulthood. There are a number of physical skills, e.g. eye-hand coordination; social skills, e.g. cooperation; and cognitive skills, e.g. remembering rules, that are necessary to successfully participate in volleyball. Lead-up skills need to be developed before engaging in a game. In the program model, participants practice these skills through relays or drills, work with a partner, use of a wall, simplified game in small groups, and other group activities. Examples of activities used in the program model follow. These activities are repeated until participants can readily meet the criteria outlined in the objectives.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: Overhead Pass

PURPOSE: To develop skill in overhead pass.

OBJECTIVE: The participant will accurately, with his/her fingers, return the ball using an overhead pass 6 out of 10 trials.

PROCEDURE:

1. Leader positions group in a line formation.
2. Participant stands in ready position with hands above forehead.
3. Leader tosses the ball high into the air to each participant in turn.
4. Participant passes ball back to leader striving for finger contact and accuracy.
5. Leader passes ball to each participant in turn.
6. Participant passes ball back to leader.
7. Leader positions participants in two lines facing each other.
8. Participant tosses ball to person across from him/her.
9. Participant passes ball to person across from him/her.

TIME AGENDA: 20-30 Minutes

MATERIALS: Volleyball or 11-inch Playground Ball.

NOTES:

1. Provide physical manipulation, as necessary, to facilitate timing and proper body position, e.g. crouch position, fingers tilted back, palms facing upward, then extending arms and legs upward on contact with the ball.
2. Emphasize contacting the ball with the fingers rather than the palms.
3. Provide verbal cues of when to hit the ball to increase sense of timing.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: Dig Pass (Double Forearm Pass)

PURPOSE: To develop skill in dig pass.

OBJECTIVE: The participant will return 2 out of 3 passes with a dig pass.

PROCEDURE:

1. Leader places participants in line formation.
2. Leader tosses ball to first participant in line three times and each in turn.
3. Participant tries to dig ball back to leader on 3 consecutive trials.
4. Leader uses a chest pass to spot just above participant's knees.
5. Participant tries to dig ball back to leader on 3 consecutive trials.

TIME AGENDA: 20-30 Minutes

MATERIALS: Volleyball or 11-inch Playground Ball.

NOTES:

1. Provide physical manipulation, as necessary, to facilitate timing and proper body position, e.g. in crouch position place back of one hand in the palm of the other and contact ball with fleshy part of both forearms.
2. Watch for signs of fatigue.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: Keep It Up

PURPOSE: To develop ability to pass ball.

OBJECTIVE: The participant will use an overhead pass to hit balls that come within 3 feet of him/her f out of 10 times.

PROCEDURE:

1. Leader positions participants in a circle.
2. Leader introduces object of game: to bat the ball into the air without letting it hit the ground as many times as possible.
3. Participant tosses ball up in the air and hits it toward another player; continues to play.
4. Participant calls out number of each consecutive hit with the group.

TIME AGENDA: 20-30 Minutes

MATERIALS: Volleyballs or 11-inch Playground Balls.

NOTES:

1. Emphasize purpose is to keep it up, not to hit it.
2. Lead up to this activity by playing catch in a circle and Hot Potato, for lower functioning individuals.

(continued next page)

NOTES: (continued)

3. Allow one bounce between hits, if needed.
4. Vary by working with partners. Partners may start by tossing ball back and forth using two-hand overhead toss and gradually working into batting the ball with fingers.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: Rebound Pass

PURPOSE: To develop skills in overhead and dig passes.

OBJECTIVE: The participant will pass the ball as it rebounds from the wall at least 4 consecutive times.

PROCEDURE:

1. Leader positions participants facing 6 to 8 feet from a wall.
2. Leader explains activity and demonstrates passing the ball causing it to rebound from the wall so that s/he can pass it again.
3. Participant passes ball against the wall striving for consecutive hits.

TIME AGENDA: 15-20 Minutes

MATERIALS: Volleyballs or 11-inch Playground Balls.

NOTE: Emphasize need to move towards the ball; not stand still.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: One Bounce

PURPOSE: To develop lead-up skills to volleyball.

OBJECTIVE: The participant will work with a team to return the ball over net during the entire game.

PROCEDURE:

1. Leader positions participants in 1-2 lines of 3 on each side of the net.
2. Leader explains object is to hit ball over the net, and demonstrates.
3. Leader tosses the ball over the net to start the game.
4. After the ball bounces once, participant on receiving team volleys it into the air, passing it to another player or over the net.

RULES: The ball may be contacted any number of times by one team before it is hit across the net.

TIME AGENDA: 30 Minutes

MATERIALS: Volleyball or 11-inch Playground Ball; Volleyball net; Poles.

(continued next page)

NOTES:

1. Vary net height to accommodate the ability of the players.
2. Use a beachball or other large, light ball for those with eye-hand coordination difficulties.
3. Start by having individuals catch the ball and throw it back over the net, in lower functioning groups.

* * * * * * * * * * * * * * * * * * * *

With such training, individuals can develop the ball handling skills to participate in a leisure activity. The awareness and knowledge of resources developed will potentiate his/her ability to continue to pursue this activity, volleyball, in the community. Because the normal frequency of participation in this activity is generally no more than one hour, one-to-two times a week, it is unlikely that participation will also result in increased physical fitness.

- Walking. Because many overweight mentally retarded adolescents have a sedentary lifestyle, their physical fitness is such that they can not initially tolerate much physical activity. They fatigue quickly and are prone to minor aches and pains from exercising. Yet, it is important for these individuals to exercise to gain the following benefits:

  - help lose weight
  - decrease health risks
  - help reduce appetite
  - aid digestion and elimination
  - reduce boredom
  - increase energy

According to the President's Council on Physical Fitness and Sports, fitness has many values:

> Physical fitness is a quality of life. It is the condition that helps a person to look and feel well, to carry out his daily duties and responsibilities successfully, and yet have enough physical reserves to enjoy his social, civic, cultural, and recreational interests. In addition, it enables him to meet unusual or emergency demands.

Thus, physical fitness is needed for the individual to participate in all activities of daily living, not just recreation.

Walking is an activity which can be tolerated by the unfit. It has the advantage of being simple and inexpensive. It requires no special facility and no special clothing other than comfortable shoes. It can allow an opportunity for socialization and to see new scenery. Therefore, walking is used in the program model to increase physical activity level and cardiovascular endurance.

Most programs for cardiovascular endurance emphasize maintaining a target heart rate during the duration of exercise. Since it is difficult to instruct

mentally retarded individuals to take their pulses, the program model relies on time and distance measurements recorded by parents as well as observations that participants are not out of breath. Research indicates that, particularly for overweight individuals, one can get almost the same benefits for weight control by walking a little farther at a moderate pace as by pushing harder at a shorter distance. Thus, calorie loss depends on how far, not how fast.

Participants are loaned pedometers and the pedometers are adjusted to their strides. After becoming accustomed to wearing pedometers during program sessions, they are instructed to wear them all day. A baseline is established through parents' charting of distances walked on seven consecutive days. Parents subsequently encourage participants to walk a minimum of 20 minutes at a brisk pace and chart distances walked at the end of the day. During the recreation and nutrition components of the program, the participants are instructed on the importance of physical exercise. This program can gradually be expanded to jogging. However, jogging is contra indicated for those who have congenital heart defects with cyanosis or are 35 pounds plus overweight. An example of how walking is incorporated into a program session follows.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: Aerobic Exercise - Walk/Jog

PURPOSE: To increase cardiovascular endurance.

OBJECTIVE: The participant will alternately walk and jog for a period of 30 minutes without stopping from Crippled Children's Division to the Medical School and back.

PROCEDURE:

1. Leader walks at a moderate pace and provides encouragement to keep up with him/her.
2. Other leader encourages stragglers to catch up by walking/jogging with verbal cues, physical assistance, and modeling.

TIME AGENDA: 30 Minutes

NOTES:

1. Watch for signs of cyanosis. Stop activity if noted.
2. Ask a participant a question to see if s/he is getting short of breath.
3. Watch for signs of excessive fatigue.

* * * * * * * * * * * * * * * * * * * *

- Aerobic Dancing. A problem with many forms of aerobic exercise, e.g. swimming, bicycling, is that the mentally retarded individual may not have the skill, interest or opportunity to participate at a high enough frequency to increase cardiovascular endurance. Because of the participants' expressed interest in music and dance as well as limited amount of space, special equipment and special clothing needed, aerobic dance is a major part of the program model. In addition to its contributions to fitness and

weight control, aerobic dance can develop physical skills. Dynamic balance is developed through turns, kicks and leaps. The dance steps enhance coordination. Participants also learn to move their bodies in a rhythmic manner. Aerobic dance additionally provides instruction in dance steps that can be used at community dances. Most participants enjoy the exercises and routines so much that they hardly realize they are exercising at a high level. If an activity is enjoyable, stimulating and fun, it is more likely to motivate regular participation.

The aerobic dancing consists of three parts: warm-up, aerobic dancing sequences and cool down. An initial period of five to ten minutes of each exercise session is devoted to warm-up activities. The less fit participants may need more time. Proper warming-up and stretching can prevent muscle and joint injury as well as give the respiratory and circulatory systems a chance to adapt. The warm-up includes stretching and low level conditioning exercise, such as trunk circles, toe touching, side bends, knee lifts and arm circles. The aerobic dancing sequence includes continuous rhythmic activity during a 20 minute segment. Routines are performed within the participants' limits of coordination, reaction time, and endurance. The routines emphasize fitness and fun, not technique. Each dance routine is structured on a combination of steps as outlined in Aerobic Dancing for Physical Education (Sorenson, 1979). A cool down period (five to ten minutes) of stretching completes the session. Because of different needs, the group is divided into two subgroups. The following provides an example of two sessions.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: Aerobic Dancing

PURPOSE: To introduce fundamentals of vigorous exercises and purpose and content of the Aerobic Dancing Program. To teach Basic Actions in warm-up routine.

OBJECTIVES:

1. The participant will repeat and answer questions on concepts relative to aerobic dancing.
2. The participant will repeat and imitate basic actions for a period of 15 minutes.

PROCEDURE:

1. Leader presents basic concepts of aerobic dance:
   a) physical fitness - how you look and feel.
   b) benefits - energy, relaxation, better health, toned muscles, weight control.
   c) aerobic exercise - continuous, "talk test", dance.
   d) time - 15 minutes 5 times a week.
   e) warm up and cool down.
   f) clothing.

(continued next page)

PROCEDURE: (continued)

2. Leader teaches basic steps: clap, half knee bends, heel steps, side bends, knee lifts, shoulder rolls, breaks, half knee bend sweep, hustle side, train.
3. Participant imitates basic steps.
4. Leader hands out chart and note to parents on how to record.

TIME AGENDA: 30 Minutes

NOTES:

1. Ask questions during dance to assess if participant is out of breath. Slow down the activity when a participant reveals shortness of breath.
2. Watch for signs of cyanosis in the cardiopathic participants.
3. Watch for signs of excessive fatigue.
4. Begin with easy exercises and gradually increase the stretching and intensity.
5. Allow creative movements during some exercises.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: Aerobic Dancing

PURPOSE: To teach and review basic actions of warm-up routine for the development of rhythm, balance, and coordination.

OBJECTIVE:

GROUP I: The student will imitate basic actions of warm-up and one aerobic dance for a period of 15 minutes.

GROUP II: The student will imitate and practice rhythmic actions of warm-up.

PROCEDURE:

1. Leader reviews charts and reinforces for stars.
2. Leader reviews basic actions adding kick steps and slides.
3. Participant practices basic actions.
4. Participant does warm-up routine to record (Hustle).
5. GROUP I: Leader teaches and participant practices half breast stroke, rock side to side and jump kicks.
   Participant dances continuously to "Sing Me" using actions; review.

   GROUP II: Participant practices basic actions, i.e. clap, half knee bend, march, heel step and knee lift, emphasizing rhythm.
   Participant free dances for 5 minutes.

TIME AGENDA: 30 Minutes

MATERIALS: "Aerobic Dancing for Physical Education"; Phonograph.

* * * * * * * * * * * * * * * * * * * *

During the exercise there should be a noticeable increase in respiration, perspiration and a comfortable level of fatigue. Individuals exercising below these levels will not show an improvement in cardiovascular endurance. However, the participant should not be so out of breath that s/he can not respond to a question.

To increase cardiovascular endurance through aerobic dance, one must participate for a minimum of fifteen minutes three times per week. Since the program is only offered one to two times per week, participants must exercise at home and take some responsibility for their own fitness improvement. To facilitate participation at home, parents are utilized to provide encouragement and positive reinforcement. In addition, parents help the participant to document progress by putting a gold star on a chart on the days when fifteen to twenty minutes of aerobic dance is done at home. (See parent group information in Appendix A.) Record keeping serves to focus attention on the activity and helps the participant remember to do the activity in addition to providing a concrete reward.

Social Lounge

Unstructured activities are an integral part of the model. Initiation, self-direction and decision-making are necessary for the independent pursuit of activities as well as relationships. The mentally retarded have more free time than the non-retarded, but generally lack spontaneity. Therefore, opportunities to choose activities, practice skills independently, and initiate asking another person to join in must be provided as much as possible. A social lounge situation, where socially-oriented equipment and materials are available and the area allows for a variety of simultaneous self-directed activities, can facilitate this process in the model. Having the social lounge interfaced into the overall program can simultaneously provide ongoing assessment and social skill development. In effect, the social lounge represents recreation areas found in the participant's home and assists transfer of learning. The following guidelines are useful in skill development:

- A variety of tasks, skills, games, materials or activities appropriate to home environments, must be offered for the participants.
- The developmental range of the materials should include a variety of items that span the ability levels of all participants.
- Solitary materials, such as books, need to be minimized, while socially-oriented equipment, such as table games, needs to be maximized.
- Materials should be as durable as possible to withstand the wear and tear of student use. Lamination, taping, etc. can help.
- Trainers should introduce participants to every component of the lounge and demonstrate its use.

- The range of behavior or activity acceptable in the lounge should be established ahead of time to help alleviate inappropriate behaviors.
- Trainers must encourage and reinforce the choice of activities and social interaction unobtrusively, as well as be a positive role model.
- Lounges should be planned so that they can be successfully implemented within the available space and facilities.
- Some means for record keeping should be prepared for the lounge.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: Social Lounge

PURPOSE: To increase opportunity to self initiate leisure activities.

OBJECTIVE: The participant will initiate one or more leisure activities during a 30 minute free period.

PROCEDURE:

1. Leader encourages self initiation of activities in unstructured situation.
2. Participant initiates activities.

TIME AGENDA: 30 Minutes

NOTES:

1. Use this time to instruct individual in table games and other activities that s/he has shown interest in when lack of initiation is due to lack of skills.
2. When a participant wants to use the same game or equipment as a peer, encourage them to share and take turns. Use a timer to indicate when a participant's time is up.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Recreation

NAME OF ACTIVITY: Card Game

PURPOSE: To develop knowledge of an activity that can be done in the home with others.

OBJECTIVE: The participant will demonstrate the knowledge and skill to play at least one card game.

PROCEDURE:

1. Leader demonstrates how to shuffle and deal cards.
2. Participant imitates actions by shuffling and dealing cards.
3. Leader explains rules of a simple card game, e.g. Go Fish.

(continued next page)

PROCEDURE: (continued)

4. Participant plays game with leader.

TIME AGENDA: 20-30 Minutes

MATERIALS: Playing cards; table; chairs.

NOTES:

1. Gradually increase the number of players in the game.
2. Once the participant plays fairly independently, encourage him/her to initiate a card game during the social lounge.
3. Encourage parent(s) or other primary care provider(s) to play cards with the participant.

* * * * * * * * * * * * * * * * * * * *

NUTRITION EDUCATION

Obesity in the mentally retarded adolescent is a great problem which often leads to obesity in adulthood. In addition to the health risks, obesity may adversely affect the adolescent's social relationships, enjoyment of leisure pursuits and attainment of physical fitness. A number of key factors contribute to obesity. Often overeating has become a habit and the excess of caloric intake over caloric expenditure leads to fat accumulation. Snacking, primarily due to boredom, is a problem in free time. Oral gratification can satisfy the dependent need to be cared for as a child rather than be responsible for one's own life. Although it is rare in the normal population to have a physical cause for obesity, some syndromes include both mental retardation and obesity, e.g. Prader-Willi Syndrome. Regardless of the cause, to control weight, the mentally retarded individual needs to alter his/her behaviors such that energy intake (food) and activity energy output (physical activity) is in balance.

A weight control program is a long-term process, and the overweight participant must be properly motivated to break the habits that caused the weight problem. Many mentally retarded individuals have been overweight most of their lives and have no concrete experience of the feeling of well-being that accompanies correct weight. For a number of reasons, the participant may be less committed to the goal of weight control than is desired. The cooperation of the adolescent and his/her parents is essential in establishing a weight control program. Since many mentally retarded individuals lack the cognitive ability to understand nutritional concepts relative to weight control, the parents must provide guidance and support as well as be models for good eating behaviors. The food served at home is the major force in forming food habits. Some parents minimize the hazards of being overweight. They may feel that eating is the only pleasure experienced by their adolescent and do not want to restrict opportunity for this pleasure. Parents of Down's Syndrome adolescents who had to coax their underweight infant to eat may continue this behavior.

Because of the need for the cooperation of both the participants and their family, nutrition education is offered both to participants and parents. Participants are taught about the four food groups and basic nutritional

concepts, e.g. how one becomes fat, through instruction and games. They are given the opportunity to develop good eating habits through the preparation and consumption of low-calorie snacks. They are also encouraged and reinforced for exercising. Parents are taught basic behavior modification techniques for weight control, are given a meal plan based on the adolescent's usual caloric intake and needs, and are asked to encourage increased activity.

Nutritional Concept Development

Mentally retarded adolescents need concrete topics because they lack the ability for abstract reason. Food and food groups are appropriate concrete topics as opposed to the abstract topic of nutrients. Photographs of the foods in the four food groups and plastic Nasco food models are used to make the concepts more tangible. One major method of teaching the four food groups is to have four separate boxes which represent the four food groups and to have participants place pictures of foods in the appropriate food group box. Another method is Food Bingo in which participants identify foods and food groups during a game. In addition to being an enjoyable way to learn, this activity provides an opportunity for the participants to learn a leisure activity, Bingo. As the participants grasp the concept of the four food groups, they can begin planning meals with the food models which include at least one food from each group. Although this is not entirely in line with the recommended daily pattern, it is easy to understand and follow. This can be done in a small group, and therefore, demands group decision-making skills. Role play situations, such as serving lunch to a friend, are enjoyable and very real when the food models are used. Such role play enhances socialization. Further explanation of these instructional methods follows.

* * * * * * * * * * * * * * * * * * *

COMPONENT: Nutrition

NAME OF ACTIVITY: Serve It Up

PURPOSE: To develop basic concepts of meal planning.

OBJECTIVE: The participant will plan a menu for a meal and role play serving it to another person.

PROCEDURE:

1. Leader points out the Nasco food models and asks questions relative to the food group each belongs to.
2. Leader emphasizes the need to have a food from each group at each meal and demonstrates putting a "balanced" meal together with the food models.
3. Participant puts together a meal using the food models.
4. Participant serves meal to another in a role play situation.

TIME AGENDA: 30 Minutes

MATERIALS: Plastic Nasco food models

(continued next page)

NOTES:

1. Provide repeated practice of putting together a balanced meal with verbal cues or questions, such as "Here's a food from the milk group; here's one from the meat group, and here's one from the grain group. What's missing?"
2. Have participants practice "balanced" meals for breakfast, lunch and dinner.

* * * * * * * * * * * * * * * * * * * *

Other concepts taught are related to weight control. Since concepts such as calories are too abstract for the mentally retarded adolescent, the nutrition component focuses on the following concepts:

- "Fat" (overweight)
- Taller and shorter
- Bigger and smaller
- "Good" and "bad" snacks (high calorie -- low calorie)

Discussion topics around these concepts include:

- Why we eat
- How we become "fat"
- How we lose weight

Concepts are taught using pictures and games. Fat Chance is a particularly useful concrete table game in which playing pieces are fed "junk" food and weighed. The winner in this game, as in real life, is the one with the fewest number of junk food pounds. The following activities represent commonly used training activities:

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Nutrition

NAME OF ACTIVITY: It Makes Me Break Out In Fat

PURPOSE: To develop awareness of concepts necessary for weight control.

OBJECTIVE: The participant will identify two pictures of snacks with high caloric content and two with low caloric content by pointing to pictures of them.

PROCEDURE:

1. Leader shows pictures of high calorie "junk" snacks with pictures of obese people and compares with pictures of low calorie, nutritious snacks with pictures of active, average weight people.
2. Participant discusses relationship between "fat" and exercise with the group.

(continued next page)

PROCEDURE: (continued)

3. Participant chooses "good" and "bad" snacks from the pictures.

TIME AGENDA: 30 Minutes

MATERIALS: Pictures of snacks and people.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Nutrition

NAME OF ACTIVITY: Four Food Groups

PURPOSE: To identify four food groups.

OBJECTIVE: During the ½ hour nutrition period, the participant will accurately name four foods shown in pictures and will correctly place the picture of three foods named into the boxes representing the food group that they belong to.

PROCEDURE:

1. Leader explains food groups and gives examples of some foods that belong to them, e.g. milk group includes things made from milk, such as cheese.
2. Leader holds up pictures of food, e.g. apple, and asks participants what group it belongs to.
3. Leader shows group boxes that represent food groups and places picture of apple in fruit and vegetable box.
4. Leader holds up card and asks one participant to name food and place it in corresponding food group box.
5. Leader holds up another card and asks another participant to name food and place it in appropriate food box and so on until each participant has identified 4 foods and put 3 in a food group box.

TIME AGENDA: 30 Minutes

MATERIALS: Laminated pictures of several foods in each food group; 4 boxes labeled with name of food group; and pictures of foods <u>not</u> included in the laminated pictures.

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Nutrition

NAME OF ACTIVITY: Fat Chance

PURPOSE: To develop awareness of what causes weight gain.

OBJECTIVE: The participant will play Fat Chance for a minimum of 15 minutes.

PROCEDURE:

1. Leader introduces Fat Chance and demonstrates how to play.
2. Participant throws dice and moves playing piece to appropriate space by counting.

(continued next page)

PROCEDURE: (continued)

3. Participant puts chits in playing piece's mouth if it has stopped on candy store, ice cream parlor, etc.
4. At designated time, participant weighs his/her playing piece against opponent's.
5. Leader comments on how the playing pieces are gaining weight while the game proceeds.

TIME AGENDA: 20-30 Minutes

MATERIALS: Fat Chance by Milton Bradley Company.

NOTES:

1. For participants who can count, but can not add dice, use one die.
2. Provide assistance by pointing to spaces and counting with the participant as needed.
3. Remember that teaching the table game is ancillary to nutrition concept development during the nutrition component.

* * * * * * * * * * * * * * * * * * * *

Another part of the nutrition component is food preparation. Preparing tasty, low calorie snacks that require no cooking is emphasized. This has several incidental benefits:

- Fine motor coordination is enhanced in cutting with a knife and vegetable peeler.
- Activities of daily living, such as washing dishes and scrubbing vegetables with a brush are reinforced.
- Social skills related to serving food to and eating with others are facilitated.

Some low calorie nutritious foods emphasized are:

- Raw vegetables such as cherry tomatoes, fresh peas in the pod, cauliflower, pepper strips, carrot, celery curls
- Yogurt dip
- Fresh fruit such as tangerines, melons, apples
- Hard-boiled eggs
- Unsweetened orange and apple juices

Agencies that would like to do food preparation that requires cooking can use one of the new pictorial cookbooks, such as Cook and Learn: Pictorial Single Portion Recipes (Vetch, et.al., 1976).

* * * * * * * * * * * * * * * * * * * *

COMPONENT: Nutrition

NAME OF ACTIVITY: Let's Eat

PURPOSE: To develop ability to prepare low calorie snacks and beverages.

OBJECTIVE: The participant will prepare a low calorie fruit salad and frozen orange juice.

PROCEDURE:

1. Leader demonstrates how to cut up fruit.
2. Participant cuts up fruit.
3. Leader supervises participant in adding yogurt.
4. Leader explains making frozen orange juice.
5. Participant makes frozen orange juice and pours it into his/her glass.
6. Participant tells why it is good to eat during discussion at snack time.
7. Participant participates in "eating slowest" contest.

TIME AGENDA: 30-45 Minutes

MATERIALS: Sharp knives; wooden cutting board; plastic pitcher; can opener; plastic mixing bowl; serving bowls; spoons; glasses.

NOTES:

1. Carefully supervise use of the knives.
2. To increase socialization, encourage participants to converse quietly during snacks.

* * * * * * * * * * * * * * * * * * * *

Energy Output

An increase in energy expenditure or activity plays a vital role in weight loss. Increased physical activity must become a regular part of the participant's lifestyle if it is to successfully affect weight control. The activity should be vigorous enough to cause perspiration and should be done for a minimum of 15 minutes. Spending an hour twice a week playing volleyball is not regular enough for weight loss. For physical activity to be integrated into the daily pattern of mentally retarded adolescents, it must be enjoyable and require little in the way of facilities, equipment, clothing, money, etc. As outlined previously in this manual, aerobic dance is an activity that meets such criteria. This activity can be done at various levels of intensity for those of low conditioning. Another aerobic activity described previously, walking, requires even less equipment. Although walking may not seem like much exercise, one extra mile walked every day will result in twelve pounds of weight loss in a year without any change in food intake (Ferguson, 1975). The walking program has two components, walking briskly for cardiovascular endurance and increasing distance. Parents are responsible for encouraging and recording activity level daily. This includes recording the number of minutes of physical activity and type of activity, as well as the number of

miles shown on the pedometer each night. Tangible and social reinforcement are needed for the walking program because it is unpleasant to move around when overweight. An added benefit to this approach is that it has a conditioning effect which increases energy.

Behavior Modification

Eating is a learned behavior. These behaviors need to be altered if the overweight moderately mentally retarded individual is to acquire and maintain an appropriate weight. One method used in the nutrition component is to learn to eat low calorie foods at home through a program of dietary restrictions. A meal plan is devised based on the present calorie intake revealed by the food diary kept by the parents and calorie needs generated by activity level and present weight. The diet plan never goes below 1200 calories.

In addition, parents are instructed in specific ways to alter their adolescent's eating behaviors. The recommendations are specific and realistic. Generally, one modification to eating behaviors is assigned per week and practiced until it is routine. Modifications include the following (Ferguson, 1975):

- Eliminate eating cues. Overweight mentally retarded individuals are very sensitive to eating cues. It is important to keep junk food at a minimum, out of sight and hard to reach. Visual cues should be reduced by taking the bulb out of the refrigerator, storing preferred foods in opaque containers, removing food from all places other than food storage areas, e.g. no bowls of peanuts on the coffee table, and removing serving dishes from the table. An appropriate place for eating should be designated and the adolescent should be required to eat all meals and snacks at this designated place. This interferes with problem behaviors, such as eating while watching television. The adolescent should not watch T.V. or do other activities while eating. Another method is to use smaller bowls and plates, so that it looks like there is more food on the plate.

- Slow down the process of eating. Many moderately mentally retarded adolescents eat in almost a continuous stream. To break this habit, the adolescent should be encouraged to put his/her fork down until each bite has been swallowed. This needs to be worked up to, but does not need to be tedious. Eating should remain an enjoyable time, free from tension. Slowing down eating behaviors can be a family game of "The Winner Finishes Last". The adolescent could be excused from a chore or given a tangible reward when s/he finishes last.

- Increase leisure involvement. A great deal of extra eating is done when the adolescent is bored and does not have anything else to do. Preventing boredom through pre-planned activities is an effective strategy to combat overeating. The activities

must be pleasant enough to compete with the urge to eat, readily available, and, if possible, incompatible with eating. What the adolescent is interested in needs to be taken into consideration. For instance, needlework, e.g. sewing, knitting, may be enjoyable for some individuals, can be readily pursued in the home, and keeps hands occupied. Problem eating times need to be identified. Then activities can be substituted for eating.

- Offer foods that are nutritious and non-fattening. The mentally retarded adolescent needs to learn alternative foods to eat when hungry. People feel full when they consume a large quantity of food. Starting meals or snacks with water, diet drinks, salad, celery, etc. can provide low-calorie volume, which will cut down on high calorie consumption. High protein foods will decrease food cravings because they last longer. A small glass of unsweetened orange juice can help overcome feelings of hunger. Over time, the mentally retarded adolescent can be trained to request low calorie foods, e.g. non-fat milk, diet soda, when eating out.

Changing behaviors is a gradual process. Behavior modification combined with dietary restriction and exercise is a proven technique for weight control. However, the success of the program will depend on a number of variables; one of the primary ones is motivation. Many parental behaviors will have to be changed, e.g. rewarding with food, as well as changing the adolescent's eating behaviors. During the pilot program, the greatest weight loss was twelve pounds. However, most participants either lost a couple of pounds or maintained their weight. For many participants, weight maintenance was an improvement over the pounds that were piling up. In the end, the adolescent and his/her parents make a personal choice relative to weight control.

SUMMARY

Social, leisure and nutrition functioning are interrelated in many ways for moderately mentally retarded individuals with a weight problem. Therefore, a program which provides social, leisure and nutrition education concurrently can impact in each area most effectively. Such a program contributes significantly to the well-being and quality of life of mentally retarded individuals. The gains made during the short duration of the program may be observable. Some individuals lose weight. Participants may demonstrate new social skills, such as asking others to join them in an activity. In the pilot program, select individuals went from not being able to catch a ball in the left or right quadrant to being able to step forward and pass the ball over a volleyball net. However, the program only represents a beginning. With adequate reinforcement and continued training in the home and school environments, these skills and behaviors can become an integral part of the lives of mentally retarded adolescents, and, thus, improve health and well-being. A follow-up which includes continued consultation with parents and schools is necessary.

Healthy people can do those things that make life worthwhile, and, as the level of health increases, so does the potential for happiness and quality of life. The mentally retarded have a right to develop an alternate lifestyle to that of Norman Normal, who was discussed in the introduction. They should have the opportunity to become Hal (Optimal) Health.

REFERENCES

Adkins, M., "Final Report: Leisure Interest Finder," Salem (Oregon) Area MR/DD Recreation Committee, 1981, unpublished.

Bailey, C., Fit or Fat? Boston: Houghton Mifflin, 1978.

Barnes, V.H., A Study of Obesity in Adolescents. Iowa City: University of Iowa College of Medicine, 1979.

Berryman, D. et al., Prescriptive Therapeutic Recreation Programming: A Computer Based System. New York: New York University Department of Leisure Studies, 1976.

Brier, N. and Demb, H., "Adolescence in the Developmentally Disabled: Stage or Syndrome". Manuscript submitted for publication, 1978.

Coyne, P., "Developing Social Skills in the Developmentally Disabled Adolescent and Young Adult: A Recreation and Social/Sexual Approach," Journal of Leisurability (Special Issue: Papers Presented at the 1980 World Congress of Rehabilitation International), Vol. 7, No. 3, July 1980.

Cratty, B., Developmental Sequences of Perceptual Motor Tasks. Freeport, Long Island, New York: Educational Activities, Inc., 1967.

Fat Chance. Springfield, Massachusetts: Milton Bradley Company.

Ferguson, J.M., Learning to Eat: Behavior Modification for Weight Control. Palo Alto, California: Bull Publishing Company, 1975.

Garcia, M.J., Aerobic Dance and Fitness. Manchaca, Texas: Sterling Swift, 1978.

Golden, D., "Play Code Chart." Crippled Children's Division, University of Oregon Health Sciences Center, Portland, Oregon, 1979.

Harris, L., "A Survey of Leisure Time Pursuits of Adult Americans: An ABC News - Harris Survey." Arlington, Virginia: National Recreation and Park Association, Dateline 1979.

"How Metabolic Is Obesity?" Spectrum, January-February, 1963, 11:17.

Linford, A.G., et al., "A Computerized Analysis of Down's Syndrome and Normal Children's Free Play Patterns," Journal of Leisure Research, Winter, 1971, 44-52.

Matthews, P., "The Frequency with which the Mentally Retarded Participate in Recreation Activities," Research Quarterly, 50:1, 1979, 71-79.

Mundy, J., Habilitative Recreation Program Planning. Tallahasse, Florida: Florida State University, 1966.

Panda, K.C., "Social Reinforcement: Theoretical Issues and Research Implications," Psychological Studies, 26, 1971, 319-339.

Rarick, G.L. and Dobbins, D.A., Basic Components in the Motor Performance of Educable Mentally Retarded Children. Berkeley, California: Department of Physical Education, University of California, 1972.

Rarick, G.L. and McQuillan, J.P., The Factor Structure of Motor Abilities of Trainable Mentally Retarded Children: Implications for Curriculum Development. Final Report, Project No. H23-2544. Grant No. OEG-0-73-5170 (607). Department of Health, Education and Welfare, U.S. Office of Education, Bureau of Education for the Handicapped. Berkeley, California: Department of Physical Education, University of California, 1977.

Redl, F. and Wineman, D., Controls from Within. New York: Freeman Press, 1952.

Sorenson, J., Aerobic Dancing for Physical Education. K.B.H. Productions, Inc., 1978.

Stein, J.U. and Pangle, R., "What Research Says About Psychomotor Functions of the Retarded," Journal of Health, Physical Education and Recreation, 37, 1966, 36-38.

Veitch, Haims, Wallace and Wallace, Cook and Learn: Pictorial Portion Recipes. Walnut Creek, California: A Child's Cook Book (656 Terra California Drive #3), 1976.

Walker, H., "Development of a Model Social Behavior Survival (S.B.S.) Program for Mainstreaming Handicapped Children into Less Restrictive Educational Settings." Paper presented at the C.E.C. Conference, Eugene, Oregon, February 29, 1980.

Washington Department of Social and Health Service, "Time Use Patterns of Group Home Residents." Unpublished report of statewide study, 1976.

Winnick, J.P., "The Relationship of Selected Handicapping Conditions and Physical and Motor Performance," Physical Education Inservice Resource Manual for the Implementation of the Education for All Handicapped Children Act (P.L. 94-142). Grant No. 451AH 7109. Department of Health, Education and Welfare, U.S. Office of Education, Bureau of Education for the Handicapped. Brockport, New York: State University College, 1978.

APPENDIX A

Presentation for Parent Meeting

PROJECT RECREATE
Nutrition Component

Sessions will be held with the adolescents at each of their clinic visits, and such items as the following will be covered:

1. food likes and dislikes
2. usual meals
3. why we eat
4. how we become fat
5. how we lose weight
6. activities enjoyed
7. concepts of taller, shorter, bigger, smaller
8. "good" and "bad" snacks (high calorie/low calorie)
9. food preparation and participation in preparation
10. portion sizes

Parents are asked to participate by keeping a food diary of everything their adolescent eats for three days. Following this, a meal plan will be devised based on the adolescent's usual intake and caloric needs. It will only work if parents help their adolescent follow through with recommendations. Follow-up will be arranged individually with each participant's mother following receipt of the food diary.

NUTRITION

July 25, 1978

ENERGY IN (food) = ENERGY USED (activity) + STORAGE (fat)

or,

STORAGE (fat) = ENERGY IN (food) - ENERGY USED (activity)

Benefits for working on the ENERGY USED side of the equation:

1. Exercise incorporated into your daily routine means that a higher proportion of the weight lost will come from fat deposits, the energy one's body has stored as fat.

2. Some form of exertion or activity added to a dull routine life can relieve some of the boredom (or the "blues") that frequently stimulates eating.

3. Exercise has a specific effect on appetite, particularly if you exercise hard before a meal. Frequently, it will markedly decrease your appetite.

4. As one loses weight, his/her body regains a thin, athletic shape.

5. One's body tone will improve, and the cardiovascular system will regain its ability to respond rapidly to stress and exercise.

6. Life becomes more enjoyable.

To determine how many calories you need to maintain your present weight, multiply your body weight by 15. (Example: 150 pounds x 15 = 2,250 calories.) To lose weight, your caloric intake must be below this figure.

One pound of body fat is equal to an excess intake of 3,500 calories. Thus, a daily reduction of 500 calories below your daily caloric needs for maintenance of body weight will cause you to lose one pound a week (500 calories x 7 days = 3,500 calories).

PROJECT RECREATE'S DANCE PROGRAM

In recent years there has been a growing awareness of the contribution of physical fitness to health and well-being. Therefore, physicians are prescribing physical fitness activities as preventive medicine for all types of patients. The staff of Project Recreate feel that developing an understanding of fitness and how to incorporate a fitness program into their lives is equally important for mentally retarded individuals. Because dance is a motivational activity for many individuals, it is being used to promote fitness in this program. More specifically, the concepts of aerobic dance are being introduced. The following explains this program:

What is aerobics? Aerobics refers to a variety of brisk, continuous exercises that stimulate heart and lung activity for a time period sufficiently long to produce beneficial changes in the body. Aerobic activities demand a lot of oxygen but do not leave one winded (anaerobic). Aerobic capacity is the best index of overall physical fitness. Some examples of common aerobic activities are running, swimming, cycling, and handball.

What time period is needed? To reach a healthful fitness level, your son/daughter will need to do continuous rhythmic exercise for 15 minutes 3 to 5 times a week, according to a pre-determined progress chart. Your adolescent will have a chart that you can help him/her follow. We suggest that you encourage your child, but do not force him/her to follow this program. It is important that dance remain enjoyable.

What does my son/daughter need to do this program?

Clothing: Light, loose clothing
Tie shoes with good support soles and rubber, i.e. running shoes

Equipment: A record player, cassette player, or radio
Music with a strong 4/4 beat, i.e. disco, polka

Hints for heavy individuals: Vaseline or other lubricants on the skin can prevent irritation from the skin rubbing together.

What kind of dancing will my son/daughter do? Forms of social dance, including disco, will be used to develop fitness. Therefore, the program will also assist in developing some skills for dances in the community. Other benefits are that the coordination and rhythm developed through dance are needed for successful participation in basketball and other physical activities.

Will my son/daughter also do exercises? Yes. A 5 minute warm-up and cool down period is important in fitness programs. Calisthenics, such as trunk circles, arm swings, toe touches and sit-ups will be used.

Will my son/daughter lose weight? Exercise alone will not cause weight loss, but it will cause toning which reduces bulk. Dietary restriction combined with exercise is the most effective means of weight loss. A surprising fact is that exercise actually cuts down the appetite.

MEMO

University of Oregon
Health Sciences Center

Portland

Date: July 11, 1979

To: Parents of Project Recreate Participants

From: Phyllis Coyne

Subject: AEROBIC DANCING

Today is the beginning of the aerobic dance program. Your son/daughter is bringing home a "boogie bookings" chart and gold stars. Kindly hang the chart in a conspicuous place as a reminder to your son/daughter to exercise.

Encourage your son/daughter to do 15 minutes of continuous movement to any disco music on the radio or record player. Don't worry about the steps; clapping hands and walking to the beat even qualifies. If your son/daughter is out of breath, have him/her slow down the pace. Reward your son/daughter with a gold star on the chart for the days of doing 15 minutes of continuous movement.

Send the chart back with your son/daughter next Monday (June 18th) so that we can also reinforce him/her.

Debbie Dodge will try to call you on Wednesday.

APPENDIX B

Two Case Summaries

UNIVERSITY OF OREGON HEALTH SCIENCES CENTER
HOSPITALS AND CLINICS

GENERAL PROGRESS SHEET

Date

Unit No. _____
Name _____
Birthdate _____

CHILD DEVELOPMENT PROGRAM
Crippled Children's Division

July 10-August 16, 1978

SUMMER RECREATE

SUMMARY REPORT:

_____is a 19 year old adolescent who participated in the 1978 Summer Recreate for Down's Syndrome Adolescents on Mondays and Wednesdays, 1:30-4:00 PM, July 10 through August 16. She was not previously known to Crippled Children's Division.

Mrs._____ was contacted regarding Summer Recreate through _____'s TMR class and Mrs._____ indicated her interest in the program. Mrs._____'s concerns involved the amount of time_____talks to herself. Mrs._____ would like_____ to be involved in physical activities and social activities, i.e., dancing. Mrs._____ participated in the parents' group.

Pre-program Assessment Clinic:

During the Down's Syndrome Adolescent Clinic on June 23rd,_____ was seen by Medicine, Nutrition and Recreation.

Problem #1 - Data Base Review and General Health:

She is under good health management.

Problem #2 - Down's Syndrome with Mild to Moderate Mental Retardation:

Problem #3 - Obesity:

She lacks knowledge of basic nutrition and weight control.

Problem #4 - Lack of Leisure-Related Skills:

_____ was given the Mundy Recreation Inventory and selected items from the Purdue Perceptual-Motor Survey. During testing_____demonstrated the following: (1) ability to catch 11"playground ball thrown to the chest area only sporadically, (2) ability to throw tennis ball with one hand, but unable to throw in a controlled manner with two hands, (3) difficulty with directionality, (4) identified primary colors only, (5) unsure of balance, (6) on all manipulation tasks, face was inches from hands, (7) ability to follow varying rhythms.

An interview with Mrs._____ revealed that _____'s leisure was primarily extra-individual, i.e., viewing television, listening to records, ball bouncing, and strumming guitar alone and intra-individual, i.e., singing, talking with imaginary friends. She generally exhibits motor activity, i.e., while in a chair she often rocks and talks to self. She is easily stimulated, i.e., if a television program is active, she becomes active. She likes music with a strong beat and enjoys dancing to music. _____does not like arts and crafts activities and does not like to be touched.

The goals for the 1978 Summer Recreate for Down's Syndrome Adolescents follow:

1) To improve participants' social skills. Appropriate social skills such as introducing self to others, wearing appropriate attire for activities, dealing with strangers, identifying "public" and "private" places and determining the corresponding acceptable behavior, and inviting others to do something with self were practiced.

Participants were encouraged to interact with each other throughout the program.

UN: _____
BD: _____

CHILD DEVELOPMENT PROGRAM
SUMMER RECREATE
Crippled Children's Division July 10 - August 16, 1978

SUMMARY REPORT (Continued)

2) To improve participants' physical skills related to leisure pursuits. Increasing ball handling skills with an 11 inch playground ball was stressed. These included kicking, catching, throwing, fielding, and volleyball skills such as the overhead and dig passes. In addition, lead up activities to kickball such as running bases was included. Identifying recreation equipment and basic use of the equipment was introduced. Equipment used included frisbee, volleyball, soccer ball and football.

3) To increase participants' knowledge of basic nutrition. The Four Food Groups were stressed. Participants identified foods according to group and planned meals including a food from each group.

4) To increase parents' understanding of recreation, socialization and nutrition relative to their Down's syndrome adolescent. Three meetings were held for parents to express concerns and be given information concerning recreation, medical issues, social/sexual education and family planning and nutrition.

Involvement:

Social skills: _____ initially sat in corner or stayed on outside of group although she participated most of the time. Talked to herself progressively less during program after reminders that it was inappropriate During social education group she had difficulty distinguishing between "appropriate" and "inappropriate" slides. By the end of the program, she was modelling staff and telling other participants if their behavior was inappropriate; she also gave social reinforcement to the other participants, i.e. applauds while saying their name, patting on back.

Physical skills: _____ participated when the group was structured and wandered off in unstructured situations. She could accurately throw and hit ball but guarded herself from high throws and made no attempt to catch them. She did much better with the beach ball. She got progressively better at standing in line but continued to get over-excited and run wildly with hands behind head or head swinging.

Nutrition: _____ continued to have difficulty identifying foods in the Four Food Groups.

Future Considerations:

1) _____ needs continued support in fostering interaction with peers at a higher level such as:
   a) involvement in low key cooperative activities, i.e., catch with a beach ball,
   b) involvement in a socialization program.
2) _____ appears to have difficulty seeing, therefore, the use of large, brightly colored equipment might be helpful.
3) _____ functions best in a structured, low key setting.
4) _____'s over-excitability could be:
   a) directed into physical activity,
   b) slowed down through the use of music and perhaps relaxation techniques.

Phyllis Coyne

Phyllis Coyne, MS, MTRS mc
Therapeutic Recreation Specialist

PC:as
Received: 10-16-78
Typed: 10-17-78
cc: Multnomah County ESD
TMR Program

cc: Mail By ESD 6 79

All diagnoses intended for indexing must be recorded in terminology and coding RE Standard Nomenclature

GENERAL PROGRESS SHEET

Date

Unit No _____
Name _____
Birthdate _____

SUMMER RECREATION PROGRAM
Crippled Children's Division

May 14 - June 27, 1979

SUMMARY REPORT:

General Information:

_____, age 19, participated in Project Recreate's Summer Program. The program ran May 14 through June 27 from 3:00-5:00 for eight sessions. _____ attended 6 of the 8 sessions. Nutrition, social-sexual education and recreation were components of the program. Mrs. _____ attended both parent meetings.

The goals for the 1979 Summer Recreation Program were:

1. To assess leisure/recreation skills and interests:

   Cutting, pasting, coloring, decision-making, visual tracking, hand-eye coordination, directionality, rhythm, coordination, ability to follow directions, and self-initiation were observed and recorded through recreation activities.

2. Increase client's peer socialization.

   Appropriate social skills such as introducing self to others, wearing correct attire for activities, determining public and private places and the responding appropriate behavior in such places, dealing with strangers, etc. were stressed. Clients were also encouraged to interact with each other and were reinforced with verbal praise by the staff for doing so.

3. To increase client's physical activity level.

   Aerobic dance was utilized to increase cardiovascular endurance and activity level. Participants with parental support were encouraged to practice the routines 15-20 minutes 5 times a week. In addition, lead up activities for volleyball such as overhead pass, catching and hitting were taught. Identification of basic recreation equipment including frisbee, volleyball, basketball and playground ball and its use was introduced.

4. To increase client's knowledge of good nutrition.

   Clients were introduced through a game to the four basic food groups and were asked to identify certain foods in these groups. Concepts of fat and skinny were discussed along with foods which contributed to weight loss or gain. Low calorie snacks were provided.

5. To establish a forum for information exchange between parents and staff operating the summer program. Two meetings were held and information exchanged concerning recreation resources, socialization, nutrition and sex education. Parents were encouraged to use staff resources throughout the program.

Program Objectives:

Specific objectives for _____ based upon initial assessment were:

1. _____ will appropriately ask a peer to do something with her in a role-play situation.

2. _____ will strike with her hand a swinging 9" ball suspended 54" above the ground on the beat 5 times out of 7.

NAME _____
UN: _____
BD: _____

SUMMER RECREATION PROGRAM
Crippled Children's Division

May 14 - June 27, 1979

SUMMARY REPORT: (Continued)

Program Involvement:

Leisure and physical recreation skills and interests:

_____ participated with the group during structured activities although she would pull away if there was a high noise level. She was able to throw, catch, hit an overhead pass and bounce a playground ball against a wall up to 5 consecutive times. She initiates ball handling activities by herself. She appears to have difficulty with visually tracking balls smaller than 9". When the frisbee was introduced, she protected her head rather than try to catch it; with encouragement, she made attempts to catch the frisbee. She was able to catch 1 out of 5 frisbees thrown directly to her and did not grasp the wrist action needed to throw it. Although able to imitate a rhythmic march and clap of 4/4 and later the basic aerobic dance movements, she did not respond to the music in a rhythmic fashion without a visual prompt. She did not reach criterion on the swinging ball. _____ was able to accurately cut circles; she had difficulty pasting; she colors by scribbling up and down lines; she prints her first name with some difficulty.

During the 20 minute unstructured recreation periods, _____ engaged in repetitive solitary activities such as looking through her purse, scribbling and ball bouncing. _____ also used these activities when she did not understand a command or how to do an activity. She was unable to consistently choose her leisure preference from the pictures and had difficulty identifying happy and sad faces.

Social skills:

_____ voluntarily participated in role-playing situations to introduce people, but was unable to ask a peer to do something with her without verbal prompts. She needed one to one assistance to keep her on task during identification of appropriate and inappropriate and was able to make this identification from pictures sporadically. In structured groups, _____'s only interaction with peers was instructional in nature, i.e. "Tim, do _____ like this."

_____ initiated interactions with adults by hugging or shaking hands and introducing herself, the hugging was phased out by the end of the program. At unstructured times, _____ sat apart from the group or attempted to go a short distance away.

Nutrition:

_____ was able to match pictures of foods and could point to pictures of foods on command with some accuracy. She had difficulty with concepts of fat, skinny, etc.

Future Considerations:

1. Lillian Cunningham, nutritionist, CCD, will provide nutrition follow up and resources.

2. _____ should continue in structured activities in school and in the community. _____ has made significant gains in ball handling skills since 1978 Summer Recreate and apparently enjoys these activities. Because of her difficulty in visual tracking, continued use of large brightly colored objects would be useful.

   _____ could also benefit from continued exposure to and development of leisure/recreation skills through agencies such as Specialized Recreation Section of Portland Bureau of Park and Recreation.

3. Penny Muck, sex education coordinator, CCD, will be available for consultation on social/sexual matters. _____ needs continued support in fostering social interaction with peers in the classroom, at home and in the community. Because of _____'s tendency to isolate herself, these must be structured, supervised experiences. Low key cooperative activities would be facilitative.

Phyllis Coyne

Phyllis Coyne, MS, MTRS
Therapeutic Recreation Specialist

PC:ds
Received: 8-21-79
All diagnostic information for ordering must be recorded in terminology and coding RE: Standard Nomenclature

Typed 8-24-79 cc: Multnomah County ESD 9-12-79 mc

APPENDIX C

Evaluation Form

UNIVERSITY OF OREGON
HEALTH SCIENCES CENTER

CRIPPLED CHILDREN'S DIVISION
CHILD DEVELOPMENT AND
REHABILITATION CENTER
P.O. Box 574
Portland, Oregon 97207

January 12, 1979

Dear

We enjoyed working with you and your son during Summer Recreate. As you know, this program was part of our grant project. It is important that we find out in what ways this program was worthwhile to you and your son.

We are planning to reinstate and expand the program in 1979. Your candid response to the following questionnaire will help us to evaluate Summer Recreate and ensure that the next program is even better.

Thank you for your assistance.

Sincerely,

Phyllis Coyne, MTRS
Co-coordinator,
Project Recreate
and
Summer Recreate Staff

ksg

Enclosures

EVALUATION
"Summer Recreate"--Project Recreate
June - August 1978
Child Development & Rehabilitation Center
University of Oregon Health Sciences Center

1. Rate each of the following aspects of Summer Recreate in terms of how valuable they were to you or your son/daughter.

	Excellent	Very Good	Good	Fair	Poor
a. Parent group - RAP Sessions					
b. Parent group - Information					
c. Recreation component of program					
d. Nutritional component of program					
e. Socialization component of program					
f. Transportation					
g. Communication of information about your son/daughter.					

Comments: _____

2. How effective were the presentations in the parent group?

Presentation on:	Excellent	Very Good	Good	Fair	Poor	Didn't Attend
a. Program's recreation activities						
b. Program's nutrition components						
c. Program's socialization components						
d. Community recreation resources						
e. Recreation ideas						
f. Nutritional ideas						
g. Socialization and sex information						
h. Medical information						

Comments: _____

3. What about Summer Recreate did you like most?

a.

b.

c.

4. What about Summer Recreate do you think your son/daughter liked most?

a.

b.

c.

5. What recommendations would you make for future programs of this type?

a.

b.

c.

d.

6. What questions or concerns do you have that we did not answer during Summer Recreate?

a.

b.

c.

7. What did you or your adolescent learn that you think can be used or will be helpful in the near future?

a.

b.

c.

8. Are you and your son/daughter interested in continuing with the program?

Yes ____ No ____ Undecided ____

9. Have you noted any changes in your son/daughter that you feel are related to participation in Summer Recreate?

Yes ____ No ____ Specify: _____

10. What other comments do you have?

APPENDIX D

Parent Letters

UNIVERSITY OF OREGON
HEALTH SCIENCES CENTER

CRIPPLED CHILDREN'S DIVISION
CHILD DEVELOPMENT AND REHABILITATION CENTER
P.O. Box 574
Portland, Oregon 97207

Dear

We are beginning a new program at Crippled Children's Division in May about which we thought you and your adolescent son/daughter might want information. This program will be designed to help moderately mentally retarded adolescents with a potential weight problem to gain further social, recreational and nutritional knowledge and skills through an enjoyable experience. In addition, your participation in the parents group would give you an opportunity to focus on changes in your child during adolescence, plan for his/her future, and share common concerns with other parents. The interdisciplinary staff of the program--including recreation specialists, a nutritionist, a social/sex educator, nurses and trainees--are interested in hearing your concerns.

This program will begin in May and continue for 12 weeks. It will be offerred weekly on Monday afternoons for two hours and on one Saturday each month. The number of participants is limited to 12. Teen-age brothers and sisters of participants who are interested in participating are welcome to do so. As this is a Project Recreate demonstration program, enrollment and transportation to the program will be free. Transportation will be arranged through Project Recreate.

Your input and participation in the program is vital. Before the program begins, we will talk with parents about what needs they see. A student nurse will interview parents and adolescents in their homes. Parents of participants will be required to attend the parent group which will be from 7:00 to 8:30 p.m. The six parent group meetings will offer an opportunity to address issues that are important to you as well as to learn additional ways to reinforce recreational, social, and nutritional skills in your child.

If you are interested in having your child participate in this Project Recreate program, please fill out the enclosed form and return it in the enclosed self-addressed envelope within the week. Remember, enrollment is limited and is on a first come, first serve basis. If your son/daughter is not already a CCD client, you will be asked to fill out medical history and request for service forms. We will contact you to confirm a pre-program meeting with you and the exact time and dates of the program.

We hope we will have the opportunity to work with you and your adolescent. If you need any additional information, please call us at 225-8247.

Sincerely yours,

Phyllis Coyne
Co-Coordinator, Project Recreate

Carol Leitschuh
Co-Coordinator, Project Recreate

PC. CL/rs

Enclosures

I, _____, and my child, _____,

are interested in participating in the social, recreational and nutritional program at Crippled Children's Division beginning in May and continuing for 12 weeks. My child is____ is not____ already a CCD client.

Child's date of birth_____

Address_____
Street

_____
City Zip Code Phone Number

Date _____ Parent Signature _____

MEMO

University of Oregon
Health Sciences Center

Portland

Date April 27, 1979

To Parents of Project Recreate Participants

From Phyllis Coyne and Carol Leitschuh

Subject Upcoming Project Recreate Program

We are pleased by your interest in Project Recreate. The program will be held on Mondays from 3:30-5:30 starting May 14th. During the program your son/daughter will have the opportunity to increase leisure, social and nutritional skills and knowledge. Carol Leitschuh will assist you with transportation arrangements.

There will be three parent meetings during the program. They will focus on adjusting to changes in your son/daughter during adolescence and lifeplanning for things such as future living arrangements, leisure pursuits, dating and diet.

The first parent meeting will be on May 9th from 7-8:30 p.m. in Room 3110 of the Child Development and Rehabilitation Center, 707 S.W. Gaines Road, Portland. When you arrive at CDRC, enter by the front door and proceed straight ahead to the elevator which is located on the other side of the wood carving facing you. Go to the third floor, and turn left.

The staff is anxious to meet you, hear your concerns, and explain the program. This will also be an organizational time to determine the most convenient times for future parent meetings, work on transportation problems, etc. A nursing student may be visiting you before this meeting.

We look forward to seeing you on the 9th!

PC/CL/rs

UNIVERSITY OF OREGON
HEALTH SCIENCES CENTER

CRIPPLED CHILDREN'S DIVISION
CHILD DEVELOPMENT AND REHABILITATION CENTER
P.O. Box 574
Portland, Oregon 97207

July 5, 1978

Dear

We are pleased by your interest in the recreation program for your Down's Syndrome adolescent. The program will be on Mondays and Wednesdays from 1:30 to 4:00 p.m. from July 10th to August 16th. During the program your child will have the opportunity to increase leisure skills, socialize and develop an awareness of nutrition. Because the program is sequential and transportation arrangements must be made, it is important for us to be notified in advance when your child will be absent.

Your child will be picked up by taxi at your home, except where other arrangements have been made, at approximately 1:00 p.m. and will be returned to your home at approximately 4:30 p.m. There will be no cost to you for this service. Kindly watch for the taxi to avoid delays.

There will be three parent meetings during the recreation program to explain the program and discuss how you can reinforce the learning at home. The first will be in Room 3110 of Crippled Children's Division on Thursday, July 18 from 6:30 to 8:30 p.m. Please find enclosed maps to the Child Development and Rehabilitation Center which houses Crippled Children's Division. When you arrive at the Crippled Children's Division, enter by the front door and proceed straight ahead to the elevator which is located on the other side of the wood carving. Go to the third floor and turn left.

We look forward to working with you and your adolescent.

Sincerely,

Phyllis Coyne, MTRS
Project Recreate Co-coordinator

PC:ar

Enclosures

MEMO

University of Oregon
Health Sciences Center

Portland

Date: July 12, 1978

To: Parents of Recreation Participants

From: Phyllis Coyne and Carol Leitschuh

Subject: Parents Group and Participants' Attire

Kindly note that the Parent's Group is on Tuesday, July 18th, from 6:30 to 8:30 p.m. There will also be parent group meetings on Tuesday, July 25th and Tuesday, August 15th at 6:30 p.m. in Room 3110 of Crippled Children's Division.

The recreation program is focusing on physical and craft activities. Mondays will be primarily crafts activities and Wednesdays will be primarily physical activities. Please have your adolescent wear clothes that are comfortable to move around in and that wash out easily. To avoid twisted ankles and other potential injuries, shoes should give support and have a non-skid sole, such as rubber.

Thank you for your continued cooperation. If you have any questions, call one of us at 225-8304.

APPENDIX E

Assessment

UNIVERSITY OF SOUTHERN CALIFORNIA MEDICAL CENTER
HOSPITALS AND CLINICS

GENERAL PROGRESS SHEET

Date

Hosp No. _____
Name _____
Surname _____

CHILD DEVELOPMENT PROGRAM
PROJECT RECREATE
Crippled Children's Division

June 16, 1978

PEDIATRIC REPORT:

_____ is a 17 year old white female with Down's syndrome and marked obesity. She is brought in by her mother to enter into the program involving nutrition and recreation in order to improve her obesity and her recreational activity. _____ has been seen many times in the CCD and was in the adolescent program in the summer of 1975. Presently, she is going to _____ High School in an integrated program. The mother has some questions about this program in that she has been quite slow to adapt in the past, but the last few months with a new teacher, she has done quite well as they stay fairly close to her level of ability. Previously, she was in _____ School. She has had one episode of flu-like illness this winter and recently has had a cold and an ear infection. At the present time she is at the end of this illness, but she does seem to have plugging of her nose and ears so the mother has some concerns about her hearing well presently. She wears glasses and is somewhat nearsighted. Apparently this is improving. She is to have the glasses rechecked in July. The mother states that she has been in the hospital twice for surgery. When young, she had very frequent upper respiratory infections and ear infections. When moved to Samoa, she did somewhat better in that climate but did have a T&A at age 7. She developed abdominal pains in the early teens and finally an exploration was done and her uterus removed and since, she has had little in the way of abdominal pain. Presently she has considerable difficulty with teeth because they are slow in budding and she has trouble with occlusion in a narrow maxilla so she eats poorly and fairly soft foods. She doesn't chew well, is on a special diet with vitamins called Sheckley. Presently she is quite inactive and it is very difficult for her to walk more than a half mile. Not only does this tire her, but she has considerable chafing between the thighs because of heaviness of the thighs. This causes some breakout in the groin area. She also has continuing trouble with a psoriatic scalp condition.

The mother also has some concerns about stretch marks on arms, breasts, abdomen, and thighs and the frequent pimples that she has about the sacral area. She does some work about the house and is fairly communicative and does well in the family. Mr. and Mrs. _____ have adopted another Down's child, ____, an 8 year old, who seems to be doing fairly well. There is a large family of siblings around.

To PHYSICAL EXAMINATION, _____ weighs 80.9 kg, is 143.5 cm in height with a head circumference of 51, so she is very heavy with distribution of fat in the upper thighs, about the abdomen, quite a full neck and shoulders. Head is well shapen. There is a scaling rash that is quite dry and flaky in the scalp and behind the ears, as well as ear canals.

She has typical features of Down's as far as facies with a downturned mouth and a lip fissured appearing tongue with a small narrow mandible and some overbite. The tympanic membranes could not be seen because of wax. Nose is somewhat plugged. Throat is not inflamed. Neck is full, but no masses. Chest is clear to percussion and auscultation. Blood pressure, 100/50. Pulse rate, 72. Breast development is normal with axillary pubic hair present. She has stretch marks and scarring about the upper arms, on the abdomen and breasts and thighs. Skin about the groin is somewhat red and inflamed in appearance. Abdomen, soft with no masses and abdominal scars present. Reflex is normal. Hands and feet are quite short. Toenails of the big toes are quite arched and dig into the flesh.

PROBLEM LIST:

Problem #1 - Data Base Review:

She is under the care of physicians and dentist.

Problem #2 - Down's Syndrome with Moderate to Severe Mental Retardation:

Problem #3 - Obesity:

Problem #4 - Marked Inactivity and Inappropriate Recreational Skills:

Lorry D. Carlson, MD
Pediatrician

LDC:jo
Dict: 6-19-78
Trans: 6-19-78

University of Oregon Medical School
Crippled Children's Division
Child Development and Rehabilitation Center
3181 S. W. Sam Jackson Park Road
Portland, Oregon 97201

Unit No.: _____
Patient: _____
Birthdate: _____
Address:
Telephone:
Parent:

Date: June 23, 1978

NUTRITION REPORT

By: Kathy S. Johnson, M.S.
Nutrition Trainee

VITAMIN SUPPLEMENT:

S: Vitamin supplement: none. Mineral supplement: fluoride.

_____ is an 18 year, 10 month old girl with Down's Syndrome, participating in in the Project Recreate Program for adolescent obese Down's. She was seen in the clinic today with her mother.

O: A diet history was obtained from Mrs._____ by way of an interview. She is going to keep a six-day food diary to mail in for analysis. Height, weight, and skinfold thickness were measured.

Height: 141 cm
Weight: 54 kg
Skinfold thickness: 22 cm
Percentile: 90th

_____ is roughly determined to be 18 pounds (8 kg) overweight.

A: A typical daily intake contains a wide variety of nutritious foods. Very few refined sugars and sweets are served in the home. She self-feeds, uses a knife to spread and cut and prepares snacks for herself. Her mother reports her only dislike or difficulty to be with fresh carrots and celery. It was suggested to Mrs._____, that _____'s inability to manage the splintering of these foods might be the result of the hypotonic tongue typical of Down's Syndrome.

P: Mrs._____ will keep a six-day food diary and return for analysis. Additionally, during the time she and her mother attend Project Recreate, spedific suggestions will be given to help_____ lose and/or maintain her present weight.

Kathy Shannon Johnson, M.S.
Nutrition Trainee

Lillian Cunningham, R.D., M.P.H.
Staff Nutritionist

UNIVERSITY OF OREGON HEALTH SCIENCES CENTER
HOSPITALS AND CLINICS

GENERAL PROGRESS SHEET

Date

Unit No. _____
Name _____
Birthdate _____

CHILD DEVELOPMENT PROGRAM
Crippled Children's Division

June 30, 1978

EXPANDED DATA BASE

GENERAL INFORMATION:

The client's mother was interviewed in order to obtain a report concerning the client's recreation activities, interests and use of leisure time.

PRESENT RECREATION INTEREST:

_____ enjoys basketball, football, tennis, listening to the stereo, television, puzzles, playing the auto harp and involving herself in yard games. She self-initiates all these activities. Tennis is played about once a week and involves hitting a tennis ball with a racket randomly. Basketball involves shooting a ball through a hoop and bouncing the ball. Football is played with neighborhood children. _____ does tennis, basketball or football for about half an hour one time a week depending on the weather. _____ listens to rock and roll records on the stereo for about 2 hours daily while she does other things. _____ watches television in the evenings and particularly likes the basketball and football games. Puzzles are played with for about 10 minutes to half an hour every other day or so. _____ has an auto harp that she plays about 2 times a week for about 20 minutes. Mother is arranging for lessons.

FUTURE RECREATION ACTIVITIES:

Mother reported that in the future she would like to see _____ involved in physical activity to control her weight and for her enjoyment. She would like _____ to do more things by herself, particularly in the area of transportation and consideration for group home living. Mother is concerned that _____ be involved in more social activities and activities with her peers. _____ does not date presently but mother reports that if _____ enjoyed it then she could participate in this activity. Mother explained that she does not drive nor does the family live close to other children _____'s age and therefore the above stated concerns for the future were difficult to facilitate.

OTHER CONSIDERATIONS:

As far as mother knows, she says she thinks _____ is an active person in a group. She can be very sociable. _____ is in a good mood most of the time. In frustrating situations she will want to go home. Mother's interests are in ceramics, bicycling and with the _____ Church. Father enjoys fishing, working with the _____ and going out on the family boat in the _____ river. _____ goes fishing with her father on the boat and helps mother with chores and at church. Mr. and Mrs. _____ take separate vacations. Father goes fishing, mother goes traveling to visit friends. Saturdays are spent getting caught up.

Sundays the family goes to church and out on the boat.

RECOMMENDATIONS:

It is recommended that _____ participate in the CCD summer recreation program for Down's syndrome adolescents. During this time she will engage in activities designed to increase her peer socialization, physical activity level and understanding of good nutrition. Her mother will be involved with the parent group of the CCD summer recreation program for Down's syndrome adolescents. She will be given information to assist her in facilitating beneficial/b[illegible] _____'s leisure time. A final report concerning _____'s participation in the recreation program will be sent to the school at the termination of the class.

Carol Leitschuh

Carol Leitschuh, MS
Recreation Therapist

:L:es
)ict: 8-18-78
Trans: 8-18-78
cc. Dec 4-79
cc. MHD 4-79

UNIVERSITY OF OREGON HEALTH SCIENCES CENTER
HOSPITALS AND CLINICS

GENERAL PROGRESS SHEET

Date

Unit No. _____
Name _____
Birthdate _____

CHILD DEVELOPMENT PROGRAM
CRIPPLED CHILDREN'S DIVISION
PROJECT RECREATE

Subjective: _____ was seen on June 16, 1978 for assessment as a potential participant in the summer recreation program for Down's Syndrome adolescents. Client stated leisure interests as basic folk dancing, painting, learning to swim, making crafts items such as a bead necklace. Client reported that she has a record player and enjoys listening to "Cinderella", Donny Osmond, and "You Are My Sunshine". Client said that she has a friend, _____, with whom she plays "love" and dolls. Client felt kickball played in school was too easy.

Objective: A modified version of the Mundy Recreation Inventory and the Purdue Perceptual-Motor Survey were administered with _____. During testing, client was cooperative and verbal. Client showed signs of fatigue after slight to moderate exertion

Assessment: On the basis of the Mundy Recreation Inventory, client was found to be weak in position concepts such as in, between, front, and back. Functioning, but needs improvement: balance, cutting with scissors, secondary colors. Following are functional and client's strengths: rhythm, ball handling, locomotor activities, and coloring.

Plan:

1. Client will participate in Summer Recreate on Mondays and Wednesdays from 1:30 to 4:00.

   a. Physical activities will be provided to improve physical fitness, position concepts, and balance.

   b. Crafts activities will be provided for enjoyment as well as to improve color identification and manipulative skills, i.e. cutting.

   c. Rhythm activities will be utilized to increase enjoyment and utilize existing strength.

Phyllis Coyne mc
Phyllis Coyne, MTRS
Therapeutic Recreation Specialist

PC:rw

All diagnoses intended for indexing must be recorded in terminology and coding RE: Standard Nomenclature

University of Oregon Health Sciences Center
Crippled Children's Division
Child Development and Rehabilitation Center
P.O. Box 574
Portland, Oregon 97207

Unit No. _____
Name: _____
Birthdate _____

NURSING REPORT

RECREATIONAL PROGRAM H.V.

_____'s mother and primary care provider, was interviewed to obtain the following information regarding _____'s leisure activities, socialization skills and nutrition habits. _____, a 19 year old Caucasian girl who has been diagnosed with Down's syndrome and speech problems lives in a large, older, well-kept home in Portland with her mother and maternal grandmother. Her father has been deceased for _____ due to a _____. The only real concern expressed at this time is _____'s overfriendliness with strangers. _____ stated that if a stranger offered her a ride, she would probably take it. The family is working on this, and there has been some improvement.

Present Recreation Interests:

The majority of _____'s free time revolves around her interest in music. She has her "own" record player, in a playroom on the second floor, where she listens to her music periodically throughout the day. _____ is able to operate the record player herself and enjoys a wide variety of music "anything that has a good beat". _____ has a guitar, harmonica, and a tamborine. She often bangs the tamborine while listening to the music and her mother stated that she is always right on beat. With the school, _____ has attended the symphony which she enjoyed. The rest of _____'s leisure time is spent in the following ways: Watching TV shows such as Sesame Street, Emergency and Donny and Marie (shows that contain some action or music) approximately two hours every day after school; riding her tricycle 2-3 times per week from corner to corner in front of the house; playing dolls - dressing and undressing them and putting them to bed; and carrying around books and papers "her stuff", mother stated that she thinks _____ is playing teacher. During the summer, _____ attends Camp _____, a day camp and enjoys this. _____ spends the majority of her free time at home but the family enjoys going on vacations together to the beach, LA, or to visit a friend a few times per year.

Future Recreation Interests:

_____ would like to get re-involved in swimming. When _____ first started school she went swimming twice a week and liked it, but stopped in January when she had tubes put in her ears. _____ expressed that she would like to see _____ get involved more in a dance program. They have attended some _____ Church dances which she enjoys because they are casual and some park bureau dances. _____ doesn't enjoy these because the music is so loud. Other possible places to send _____ for leisure activities, if programs are available, are _____ Park, _____, YMCA and _____ Church.

One barrier to some recreational involvement is _____'s inability to get around without relying on someone to transport her. A friend is planning on working with _____ on riding the bus. Outside of the house, _____ is allowed to only walk from corner to corner without supervision, otherwise, she is accompanied by other adults or family. _____ talks on the phone but doesn't dial. She also

(continued)

University of Oregon Health Sciences Center
Crippled Children's Division
Child Development and Rehabilitation Center
P.O. Box 574
Portland, Oregon 97207

Unit No.: _____
Name: _____
Birthdate: _____

NURSING REPORT

doesn't answer because her speech is difficult to understand.

Interaction:

_____ has _____ siblings who she gets along with very well. When _____ is around her peers, she tends to ignore them. She likes to be around people her age, however, she doesn't have much opportunity except around school. _____ enjoys being around adults and will pay attention to them. She often is too friendly and has the attitude "I love you and you love me". With strangers, _____ is not afraid. This is one concern the family has. When _____ is in a group, she will usually join in for awhile, then "do her own thing". She likes to be the leader - to boss and tell people what to do. In general _____ is a happy person who laughs a lot, but when she is unhappy it is easy to determine by her sassiness and door slamming. When she encounters a frustrating situation, she will usually go on to something else.

Future plans:

After high school, _____ will continue to live at home and hopefully get involved in a workshop situation where she could work with her hands. She is also on the waiting list for _____ in _____ for when her family is no longer able to care for her. Regarding dating, the mother stated it would be all right but that "she doesn't know what to do". A few times, _____ has become attached to her brother's friends and they treated her like a sister. _____ has expressed that she would like to have a boyfriend and the mother believes that she has fantasized some. At the present time, there are no sexual concerns.

Nutrition:

_____ eats three balanced meals a day with the family which she enjoys. These meals are prepared by the mother or grandmother. _____ occasionally helps in the preparation of meals and is able to make a sandwich. _____ likes most foods, has no allergies and is on no special diets. _____ expressed that she would like _____ to lose 15 pounds.

The Mundy Recreation Inventory was done to assess _____'s functioning level. It is necessary to assess her abilities and performance to determine the type of recreational activities that would be appropriate for her level of development. In summary of the inventory**definite strengths - object identification, action concepts involving one instruction; rhythm; stringing objects, however, had the objects very close to her eyes; locking and position concepts.

- **functioning but needs improvement; tracing and coloring and throwing - doesn't know the difference between underhand and overhand.
- **weaknesses: action concepts involving more than one instruction, number concepts, identifying colors, catching ball unless thrown between the neck and waist, identifying position of objects relative to body and cutting shapes.

Carrie Tetlow, SN

Cecelia Capuzzi, RN

Cecelia Capuzzi, RN
Community Nursing Instructor

CT:as
Received: 6-6-79
Typed: 6-7-79

APPENDIX F

Play Code

DEVELOPMENTAL LEVELS OF PLAY

Developmental Age	Birth - 6 mos.	7 - 12 mos.	13 - 18 mos	variable	19 - 24 mos.
	EXPLORATORY				
Characteristics	Orienting: mouths, licks, bites, body moves, babbles, vocal patterns.	Repetitive manual manipulation.		Observing behaviors of others.	Repetitious: Pulling, pounding, throwing, jumping, climbing (locomotor exploration)
	PRACTICE (FUNCTIONAL) PLAY				
	NON-INTERACTIVE				
Social Interaction	Unoccupied Behavior. (Intra individual)	Solitary independent. (Extra individual)		Onlooker	Parallel (Aggregate)
# Participants	1	1	1	variable	variable
Examples of Activities and Materials	Peek-a-boo, Where's Baby?, Patty Cake, Treasure Hunt, This Little Piggy, Eeentsie Weentsie Spider, Horsey, etc.				Water play, sand play.
	Senses and body; other bodies; concrete objects; soft, cuddly toys, mobile for crib, noisemakers, large plastic rings, etc.		Squeaky play animals, unbreakable dolls, empty containers with removable lids, floating bath animals, nests of hollow blocks or boxes, etc.		Crayons, 3-5 piece puzzle, large ball, tom-tom, wagon, rocking horse, pull toys, pound toys, pots, pans, wooden spoons, large containers, sponges, etc.

Developmental Age	2 - 3 yrs.	3 - 4 yrs.	4 - 5 yrs.	5 - 6 yrs.
Characteristics	Investigatory, climbing, running, jumping, digging; no give and take in play.	Representative, imaginary, climbing, swinging, role play.	Make believe play; cooking with parent, takes turns, shares toys.	Systematic; varied construction, conforms, some rivalry, increased doll play.
	PRE-OPERATIONAL (SYMBOLIC) PLAY			
Social Interaction	Associative Play	INTERACTIVE Cooperative Play One-to-one (Interindividual)	One-to-others (Unilateral)	Group (Multilateral)
# Participants	2 or 3	1:1	2 or 3	2 - 5
Examples of Activities and Materials	Not yet ready for organized games.		Hide and seek, tag, red rover, sewing cards, King on the Mountain.	Simple circle games (Duck Duck Goose), jumprope, hopscotch, target toss, bat ball.
	Dress up, telephone play.	Singing games (Here We Go Round the Mulberry Bush)		
	Bean bags, housekeeping equipment, costume box, hollow blocks, large wooden beads, picture books, push-pull toys.	Bubble set, clay, sand, farm and zoo animal sets, costome box for dress up clothes, floor blocks with family figures, transportation play materials, steering wheel, large cartons, hammer and nails.	Finger paints, crayons, blunt scissors and paste, puppets, play luggage, housekeeping equipment, wood scraps, Play Doh.	8-20 piece puzzles, puppets, play circus, fix-it and try-it materials, tricycle and bicycle, stacking and nesting toys, plants.

Developmental Age	6 - 8 yrs.	8 - 10 yrs.	10 yrs. and up
Characteristics	Construction, wrestling and tusseling, curious about nature.	Preoccupation with realism; operational, like friends of own sex.	Specialization of interests. (hobbies, collections); yield to group, team spirit.
	CONCRETE OPERATIONS		FORMAL OPERATIONS
Social Interaction	Group (Multilateral)	Cooperative Team (Intragroup)	Competitive Team (Intergroup)
# Participants	2+	Variable.	Variable.
Examples of Activities and Materials	Low organized games (Steal the Bacon) Not ready for team activities in which the group wins rather than the individual. Checkers, target games.	Lead up games (Newcombe) and relays; clubs; writing to pen pals.	Regular sports with adult rules adapted to needs (tennis, basketball); news and poetry writing; band and orchestra; choral groups; social dances, creative dramatics.
	Plaster of Paris, papier mache, table games (lotto, parcheesi), wagon, jump rope, marbles, pogo stick, kite, playhouse, puppets, boy & girl dols, climbing apparatus, chalk board, clay, nature crafts, nature games.	Steam engines, electro magnets, old alarm clocks, sports equipment, bicycle skates, craft sets, hobby sets, live pets, table games, table games (Chinese Checkers), box hockey, table tennis.	Hobby sets, musical instruments, camera, sports equipment, electrical and scientific equipment, books of reference, tools, character dolls and materials for making doll clothes, record player, table games (chess, dominoes, poker, etc.)